The SHERIFF of THORIUM GULCH by Miles J. Breu
See BACK COVER
AMAZING STORIES
The VENGEANCE OF MARTIN BRAND
By G.H. IRWIN
AUGUST 25c
VOLUME 16 NUMBER 8
AMAZING STORIES
AUGUST 1942

PITYROSPORUM OVALE, the strange "Bottle Bacillus" regarded by many authorities as a causative agent of infectious dandruff.

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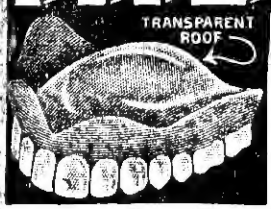

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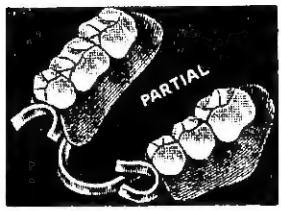

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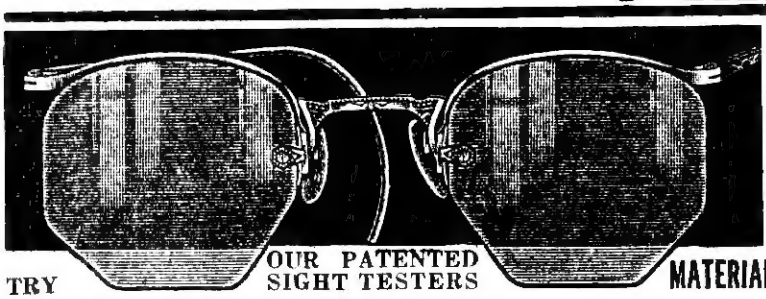

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Front cover painting by H. W. McCauley, illustrating a scene from **The Vengeance Of Martin Brand**
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Illustrations by H. W. McCauley, Malcolm Smith, Ned Hadley, Robert Fuqua, Swan Studios, Inc., L. Raymond Jones, Jay Jackson, Russell Milburn, Joe Sewell, Hugo Wolf

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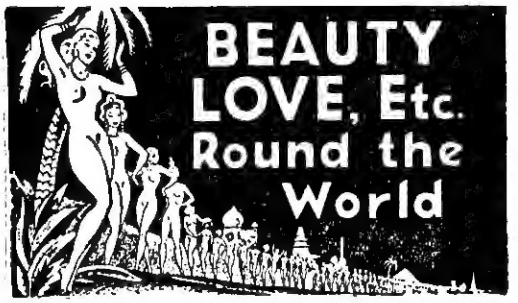

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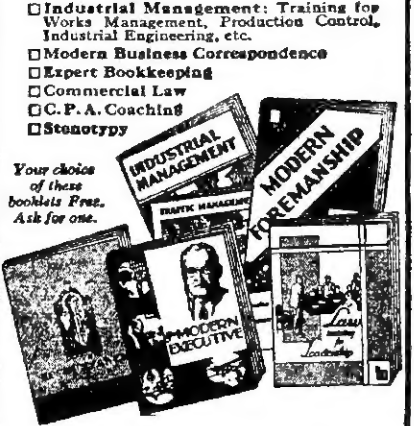

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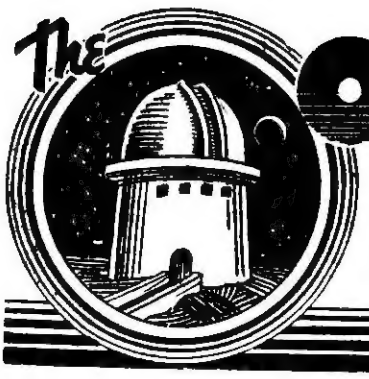

The OBSERVATORY by THE Editor

HAVE you a good imagination? Then picture your editor at the present moment! First, Mr. J. K. Westerfeld, who has recently been assisting us to present AMAZING STORIES to you in proper style, along with *Fantastic Adventures* and *Mammoth Detective,* is now a member of Uncle Sam's armed forces, which leaves us alone with 812 individual pages of magazine to make-up and pull out of a hat as three complete, gigantic magazines. Since there are only 30 days in a month . . . oh heck, you figure it out! We haven't the strength.

Next, your editor recently took a vacation in Canada, carried a camera, took pictures of what turned out to be a defense zone, and wound up making countless explanations to every form of official executioner known to this continent. We almost did not get out of it. We shudder to think of what would have happened if that negative *had* turned out to be an airport, and not a photo of Hiawatha Falls!

So, what with being held incommunicado for three days, while your favorite magazine sizzled toward deadline, we can only hope that lack of editorial time this month is made up by authorial brilliance, to provide you with the kind of a magazine you have come to expect.

LET'S see now, if that's true. We seem to have a couple of newcomers this month, plus the return of one very old (in reputation) favorite, and the reappearance of several favorites who haven't appeared very often lately.

The first newcomer is G. H. Irwin, who writes a serial for us. Irwin is a doctor, by profession, and a science fiction reader "for the fun of it," as he says. Now he's written one for us, patterned after his very successful yarns in the adventure pulps. We think you'll like it.

Leroy Yerxa is a Chicago lad who's been trying very hard the past few months, getting rejections by the bale, but he finally clicked, and he says he'll be back. We kinda think he will.

Miles J. Breuer is the oldtimer. Many of you will remember a yarn called "The Gostak and the Doshes." We remember it as a story that has since been set up as an example of the most perfect satire ever written for science fiction. His newest yarn is not a satire, but we know you'll be pleased with his return to our pages.

WE'RE mighty happy to bring back John Russell Fearn, Richard O. Lewis, Jep Powell, and Henry Kuttner too. And, of course, you all know Horsesense Hank, author of Nelson S. Bond. And Don Hargreaves, whose real name is Festus Pragnell. Lastly, your old short-story favorite, John York Cabot, who comes in again with another of those grand bits only he seems able to bat out with any consistent percentage.

THE cover this month, illustrating "The Vengeance of Martin Brand," is by H. W. McCauley, the second time the Mac Girl has appeared on our cover. With its appearance we have the extremely good news that the Mac Girl will not be in the army after all, because maybe somebody noticed how many of the boys have her pasted up over their bunks, and she's worth more to morale on our cover than in a tank.

IT'S FUNNY how war stimulates science. And incidentally makes AMAZING STORIES come true in a hundred different ways. For instance, our rubber supply has been doubled, not materially, but in effective usage, because somebody found out how to make tire casings out of cotton, resulting in a tire strong enough to equal the best previous tire with only half the rubber.

THEN, as shown on our back cover, the jet-propulsion airship is now a reality. The Italians invented it several years ago, but you can bet they won't have the best model when all the shouting is done. Incidentally, your editor learned something perhaps you can learn too when you read the author's article on the back cover. Jet-propulsion ships are *not* rocket ships! Even though they travel on something or other shot out of a tube in the rear.

WE'VE read stories in this magazine in the past of "destroying" civilizations, of wiping out populations of whole cities. These "science fiction wars" have been terrible things, fictionally. But today, scientific probings are being made into

(Continued on page 8)

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107. SCIENTIFIC BILLIARDS by Welker Cochran. Balkline, three-cushion and pocket billiards are explained by the World's 18.2 Balkline Billiards Champion, who won a world's 3-cushion championship in his first try.

108. TOP-NOTCH TABLE TENNIS by Emily Fuller. Lessons from the Women's National Singles Champion, holder or past holder of every major women's table tennis title. She didn't lose a tournament match in six years.

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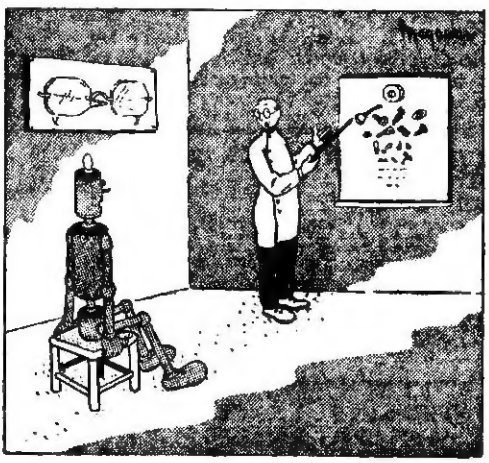
(Continued from page 6)

whether or not the best objective in bombing is a factory, or a certain number of vital tools, or human beings themselves. And the amazing results of the scientific calculations is that the man is what wars are fought with, and he is the one to bomb. Sounds pretty horrible, but maybe we'll soon see duplicated, by our own forces, the ruthless bombing of "manpower" that has been advocated in "future war" stories. But it isn't too horrible when we remember Rotterdam, Warsaw, and others. That was scientific bombing!

SPEAKING of the war, we have a special Victory Issue coming up. Very soon now, you'll see a front cover by James B. Settles that may prove to be one of the neatest bits of prophecy you've ever seen in AMAZING STORIES. Robert Moore Williams is doing the yarn for it, and other stories in the issue will also feature the war, both in a present-day set-up, and carried into the future. We think you'll like this one. It's strictly not a stunt, but something you'll read two years from now and gasp with amazement, because of the things it contained which came true. Don't miss it. Watch for further announcement in this magazine. And you might keep an eye on the *next* issue; that might be it!

YOU folks living in Connecticut and Massachusetts can be excused if you walk about a little cockeyed. You see, you're being subjected to different gravity pulls. A group of scientists have recently suggested that your two states are perched smack on top of huge underground mountain ranges. (Whatever an "underground" mountain range is!) They have based their conclusions on the discovery that various parts of both states have different gravity pulls. They believe that the stronger gravity pulls are caused by the peaks of the sunken mountain chains, while the weaker gravitational attractions are produced by the valleys and troughs. So you'd better be careful there. You might fall off a mountain if you don't watch yourself!



WE'VE got another one "up" on the Japs now! For over thirty years the Japs have produced about 90% of the world's natural camphor from the camphor trees in Formosa and Japan proper. Today America is capable of producing synthetic camphor from turpentine—all we need in the present day emergency for explosives, celluloid, disinfectants and drugs.

PERSONALLY, we've always felt brass knuckles were mighty handy in a fight, but now science comes forward with some facts that make us sure of it. In fact, we lean toward the mailed fist now. The boys who know tell us that human teeth can inflict not only pain but death to the person bitten. Thus human "defense" weapon is especially dangerous if the hands and fingers are bitten. Virulent mouth germs infect the seemingly harmless wound. The muscles and tendons speedily carry the infection along.

If the fist had been clenched and then pushed into the mouth as in a fight (what a way to describe a short jab to the teeth!) the seriousness of a human bite is much greater; for when the hand muscles are finally relaxed, they transport the germs deep into the tissues. These joints and tissues are so complicated that freeing them from infection is difficult.

So, it's safer to use the brass knuckles, for two reasons. One, you don't get bitten; two, you stand a better chance of winning.

WE think we of today have invented all the screwball things, but every time we take a peek back into the past of Egypt, we find out we aren't so original after all. Take the sit-down strike, for instance.

In 1179 B. C. Egyptian workers quit work on several royal pyramids until their overdue wages were paid. The records show that the first sit-down in history, unlike many of its modern counterparts, was a complete success. The boys got their money. And without a union, too!

NOW we can prevent baldness by an operation! Very simple, too. Just loosen the skin, eliminating tension, and at the same time increasing the local blood supply turns the trick. Baldness, we hear now, is caused by the expansion and tension of the skin on the scalp. Sounds like a problem in engineering!

However, your editor wonders if it wouldn't be just as bad with your scalp on the loose, crawling all over!

(Continued on page 196)

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Charts showing periodicity of natural desire in women.

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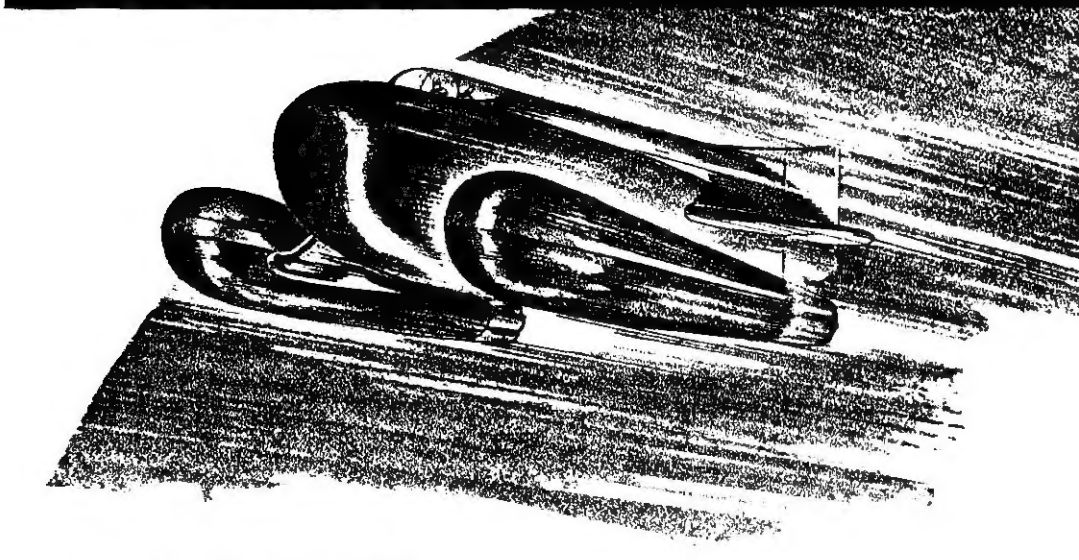

The ship roared away into the Lunar night

by G. H. IRWIN

"COME and get me, boys! If you can!"

Martin Brand clenched one space-browned fist around the fighter's throttle and threw the ship into a screaming, roaring bank that ended in a terrific dive straight down, parallel with the breath-taking forty-thousand feet of cliff that was one side of the Liebnitz Mountains. With his other hand he pressed a switch on the control panel—a switch that had all the earmarks of having been crudely installed by one who was not a mechanic.

There was a faint hum, then from a speaker mounted over his head came a burst of music.

Brand grinned as the strains of "Die Walküre" dinned into his ears. He turned up the volume still further, until the roar of the music drowned out the drone of his rockets.

"Now come on, you lousy ambushers!" he roared.

Behind the ship against the rocky wall of the Liebnitz, a brilliant, soundless puff of light momentarily erased the inky moon shadows at the mountain's foot.

"Missed!" exclaimed Brand triumphantly. "And you had me boxed!"

Suddenly, across his sights flashed a hurtling dot. Brand tripped his guns. Once again the bright light puffed, this time as one of Brand's shells exploded —in the hull of the enemy ship.

"That's it!" screamed Brand. "The luck of Suicide Martin Brand! Back on Earth I'm a legend. But right here, I'm a damn fool—a fool even the devil won't kill."

There was something bitter in Brand's tone as he shouted aloud over the crash of the magnificent Wagnerian music dinning in the control room of the tiny fighter rocket. There was bit-

MARTIN BRAND

Bitter, his happiness blasted, Martin Brand sought danger and death—became the nemesis of Mars' fifth column on the Moon

ter recklessness in the thrust of his hand as he bore the throttle over hard and sent the flier zooming up again in a heart-bursting maneuver.

The fire of the remaining three pirates—the thought of the word pirate brought an angry flash to Brand's eyes —converged on the Lunar floor over which he'd been, and then, suddenly, they were below him and in line with his sights as he looped over at the top of his upward rush.

Once again those brown fingers clenched, and this time a spray of shells vomited outward toward his enemies. Not just one lucky potshot, but a barrage with all six forward guns.

Brilliance blinded him as thirty-six magnesium-atomics burst all around the diving ships trapped in his sights. When the light faded, he saw another ship dropping in a mass of fragments toward the desolate surface below. The other two were streaking desperately across the sea-bottom, crater-hopping like mad to put distance between them and the demon fighter who had so recklessly and amazingly escaped the perfect "box" ambush they had laid for him along the slopes of the Liebnitz.

Without pausing, Brand lanced his ship after them. Gray lava swept under the belly of his flier with a blur of motion. With a grim, set grin on his lips, he centered the cross-hairs on the flames of the laggard's rockets. His finger pressed delicately. Six shells "ringed" the ship, blasted it into fragments that showered down even as Brand's flier tore through the expanding gas of the explosion.

It was then that the surviving ship made its fatal mistake. At the range that now existed, the pirate might have escaped had its pilot continued in a straight line. Instead he shot his ship outward into space in an attempt to flee the satellite.

Brand's pursuing ship flared across the heavens. He instantly computed the angle of intersection, then waited, eyes squinting. The pirate ship sped up into range of his guns. . . .

Ten seconds later the fight was over. The wreck of the last pirate ship twisted madly as it hurtled down to a soundless crash on the airless sea-bottom.

BRAND slacked speed, bore his ship around, and then brought it to a long, gliding landing near the wreckage.

And as he did so, a rocket flared beyond the wrecked ship. A tiny one-man escape rocket looped over a crater rim and streaked toward the horizon. Brand cursed.

"Damn! He got out before she crashed!"

There was no chance of taking off in time to catch the speedy little ship; but he switched on his communicator and roared into it.

"Run! You rat! And when you get home, tell your boss I'll get him sooner or later. The next time he tries to trap me, tell him to bring out his whole damn fleet!"

There was a faint hum in the receiver, and Brand snapped off his recorder, which was still blasting out the music of his favorite selection.

A voice came faintly from the speaker. Brand turned up the volume to its peak. With a crackling of static, but still quite clearly, the voice spoke.

"You never could hang on to anything, Martin Brand," came the voice, dripping with mockery. "Not even a girl! And the next time we meet, you won't be so lucky. I'll bring you in and you can give the boss your own messages!"

There was a sudden snap and the hum faded from the speaker. The

man in the escape rocket had cut off his radio.

But Martin Brand sat as though frozen, only the static of empty space breaking the silence inside his fighter. Only static; until his voice cracked out in a hoarse whisper that, had it become flesh and blood, would have been incarnate hate.

"Jeffry Killian!"

Again and again through Martin Brand's head echoed the words he had just heard. *You could never hang on to anything, Martin Brand. Not even a girl!* And as they repeated themselves over and over, another voice whispered in his mind. A voice as soft and musical as a summer breeze in a forest; cool, alluring, sweet. Whispered in his mind and carried him back over ten long years . . .

"I LOVE you, Martin. Oh so very much . . ."

Martin Brand crushed the slim girl's form to him as he kissed her yielding lips, passionately, tenderly, adoringly.

"We're going to be so happy, Estelle," he said. "Just wait till you see the home I've built for you. The coziest thing on three planets . . ."

"I can hardly wait," she said. "And I'll treasure everything in it. You've worked and fought so long and so hard to get it . . ."

"Just for you," he put in.

"Just for me?" she questioned coyly. "You've only known me five months. Couldn't it just as well have been any other girl?"

He clutched her to him.

"No! I've known you ever since I was old enough to know there could be anything like you on Earth. I've pictured you in my mind almost since the first time I rocketed a ship into space, a raw kid in the interplanetary patrol. I don't think there could have been a little home if you hadn't really existed."

She laughed.

"You dear," she said softly. "You idealistic darling."

He fished in his pocket, showed her the deed to their home to be, and for many moments they read it together.

"Ive got to go now," he said then. "But I'll see you tomorrow morning at the spaceport. Then we'll walk up to Commander Wilson and get tied up in glorious style. Great old man, Commander Wilson. Not a man in the universe I'd rather rocket with. He gave me official orders to let him do the officiating."

"It'll be wonderful," she breathed.

Again he kissed her, and left.

"COMMANDER wants to see you," said Brand's roommate when he reached his quarters. "Probably wants to make sure you've got the ring."

Brand grinned. He put his fingers into his watch pocket, removed and flipped a tiny box at the rocketeer.

"From now on, Hal, it's your worry. You're best man, you know. And if I haven't got a ring when Commander Wilson calls for it, there'll be one member of the Orson family who'll rocket no more!"

"Take more than a Brand to stop an Orson," the rocketeer tossed at Brand's retreating back through the doorway.

Brand knocked at Commander Wilson's door and waited. A gruff voice answered and he went in. He closed the door behind him, saluted sharply.

"Lieutenant Brand reporting as ordered, sir," he said.

Commander Wilson's space-tanned face appeared rather red in the glow of the desk light before him.

"Never mind the formality, son," he said. "Sit down. I've got some things to say to you."

He fussed around at some papers on his desk a moment, while Brand seated himself and waited.

"Damned nuisance!" fumed the commander. "Just when I wanted a vacation. . . ."

Brand leaned forward, startled.

"We haven't been ordered out?" he questioned anxiously.

"Not immediately. But we leave in four days. You'll have a very short honeymoon, lad. Three days."

Brand looked disappointed, then he stiffened.

"We can arrange it, sir. If this thing's what I think it is, it's more important. We can continue the honeymoon later. After all, we'll have a long time to be married."

Wilson chuckled.

"That's youth for you—thinking the honeymoon will never end. Well, I hope it doesn't, lad, because . . ." the commander sobered ". . . maybe the next ten years are going to be tough ones."

"The Martians?"

"Yes. The latest report comes from Luna. It seems a party of Martian scientists have obtained permission from the Lunarian government to conduct archeological explorations on the dark side.* Archeology my foot! The dirty snakes are scouting the territory for military purposes."

"You mean you think Senator Beasley is right? That Mars intends to invade Earth?"

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"What are our orders?" asked Brand.

"Unofficial," said Wilson. "Senator Beasley and the president aren't asleep. We're to 'scout' beyond interplanetary limits and keep our eyes open. But dammit, that isn't enough. Sooner or later we're going to have to institute a secret service unit which will be entirely on its own risk—somebody who can fight it out freelance and be prepared to take the rap if caught. . . ."

"Count me in on that, Commander," said Brand swiftly. "I . . ."

"Not a chance." Wilson shook his head. "That'll be for single men only. It's too much a suicide job. For instance, if the Lunarians nabbed one of these operatives, he'd probably be liable to life imprisonment, or even shot as a spy, and our government would have to deny him altogether. In fact, he'd forfeit his citizenship when he went into the service."

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When exploration was first made, the huge openings to the interior of Luna (where the race of people who inhabit the satellite find access to the surface), were found and contact made with the Lunarians. The Lunarians are distinctly oriental in appearance, almost identical to Earth's Chinese. Legends of both worlds tell of a migration to Earth when the surface became too devoid of atmosphere for human life, and of a similar descent into the moon's interior. Thus it may be true that the Chinese are Earth refugees of the Lunarian race.—Ed.

"You talk as though this service were already in existence."

"Not yet. But let's talk about that wedding tomorrow. Has she picked out a ring . . . ?"

A CONFUSED babble of voices drifted across the take-off platform of the Space Patrol landing field. Brilliantly uniformed rocketeers stood chatting with lovely girls, and behind them loomed the tremendous mass of the blasting pit's metal-and-concrete walls.* The morning sun was shining brightly, and beneath an arbor of flowers stood Commander Wilson, waiting. Before him stood a double line of officers of the Space Patrol, wearing their dress swords. At the far end of the line stood Martin Brand and Hal Orson.

Brand was fidgeting nervously, peering often toward the gates of the landing field, which yawned to the highway outside where the limousine that would bring Estelle Carter and her bridesmaids was scheduled to appear.

"This thing's twisted," said Orson. "Isn't it supposed to be the groom who traditionally keeps the bride waiting?"

Brand grinned faintly.

"She's worth waiting for, Hal. But if she doesn't come soon, I'll need a fresh collar . . ."

Ten minutes passed, and Commander Wilson moved back into the shade of the arbor. Orson's face took on a sober look, and he fumbled often in his jacket pocket where reposed the ring for which he was responsible.

The purr of an atomic motor came from the road beyond the fence, and Brand stood erect. The line of officers snapped to attention; white gloves went to sword hilts in readiness.

A messenger's cycle swept in through the gate in a swirl of dust. Its rider dismounted, propped up his machine and strode forward.

"Lieutenant Martin Brand?" he asked.

Brand stepped forward.

"Here."

Brand took the message the boy handed him, while Orson tossed the lad a coin.

"Something wrong, Martin?" asked Orson while Brand scanned the message he had removed from the envelope.

Brand's face went white as the words bit into his brain . . .

Congratulate us. Estelle and I will be married by the time you read this. No hard feelings; the best man won. Jeffry Killian.

He didn't hear Orson's repeated question. He stood there, a blood red haze before his eyes, a roar in his head. Slowly his fingers curled into a white-knuckled fist, crushing the paper into a ball. Then they relaxed and the paper fell to the ground. Unseeing, unhearing, oblivious of the tense silence that hung over the landing field, he strode through the gate toward his car.

He didn't hear the curse that Hal Orson loosed as he picked up and read the message. A curse that Hal Orson was too enraged to notice caused pink cheeks to appear on some of the attendant girls, and tensed jaws on the part of their escorts—but a curse that was echoed by Commander Wilson in modified form as he read the sheet from Orson's hand.

"The skunk! The no-good, rotten rat!"

As he strode through the gate, whispered words formed on Brand's lips.

* Rocket ships are launched into the void from an erect position inside huge launching pits which prevent disastrous "flare" from the rockets at the take-off. The upper portion of these pits, to a height of several hundred feet, taper up in a sort of rounded cone to the opening at the top. Vents at the bottom allow poisonous gases to be eliminated at the top after the ship has taken off.—Ed.

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that she'll regain her sanity. There's been some sort of mental shock also. Perhaps the sight of her . . . companion drowning while she was powerless to help him."

"I want to see her," said Brand, tight-lipped.

The doctor led the way down the corridor to a small room. Brand entered first. He halted as he saw the figure on the bed.

"She's s t r a p p e d down!" he exclaimed.

On the bed lay Estelle Carter, legs and arms strapped to the bed, a leather strap across her breast. Her head was heavily bandaged, one arm was in a cast. Her eyes were open, and they stared directly into Brand's with an intense glare that stopped his lips with shock.

"Look at the tin soldier boy!" she jeered. "I hate you! I hate you! I hate everybody! You've got stars in your eyes . . ."

In startling change she recoiled, fearful, eyes dilated.

"Stars!" she shrieked. "They're in your eyes, and they're getting bigger. The whole sky is full of them. Running races, t h a t's what they are. Racers! And cowards too! They aren't really racing—they're running away . . . ooohhhh-hh!"

Her voice ended in a high-treble scream, filled with utter terror combined with horrible hate. She tossed convulsively on the bed.

"The fool! He thought I loved him. He got a deed to a nasty little shack . . . Get away from me. You've got racers in your eyes!"

Martin Brand recoiled. Then he moaned and a shudder shook his big shoulders. Abruptly he wheeled, ran from the room, colliding with Hal Orson whose face was white and tense.

Outside, sobs tore from Brand's throat, while Orson gripped his arm tightly and held it.

COMMANDER WILSON extended his hand and shook that of Martin Brand soberly but with feeling.

"Welcome to the Special Service," he said. "From now on you are a free agent. You will receive your instructions from me only, and your area will be 24B-Luna. Your identity has been established as Robert Wales, political criminal, and you are legally dead as Martin Brand. As Robert Wales you have no rights as a citizen, although none can deny that you are still an Earthman. All of your actions will be those of a renegade. But your job is to smash the plot that is brewing on Luna. Mars must not be allowed to establish a fifth column there, nor to invade. Until the powers that be realize our danger, we must work in the dark.

"If you get into trouble, your government will deny you."

Brand nodded.

"I know. It's all right. I have nothing to lose." His voice was dull.

Commander Wilson poured a brandy from his private stock.

"Drink this," he said. "And snap out of it, son. You've got a job to do. And you've done a noble thing in setting aside all your savings as a maintaining fund for poor Estelle. She'll be taken care of. But don't let it make you bitter, lad. There are other women . . ."

"Not in t h i s service!" snapped Brand. "Remember what you told me once before?"

"Sure, but . . ."

"That's the way it suits me," said Brand. "And as far as my job is concerned, the Martians will wish I'd never been born."

"I'm sure they will," said Wilson, a

Commander Wilson

troubled look in his eyes. "But don't be reckless. A dead agent is of no use to us, you know."

A flinty grin crossed Brand's face.

"I don't die easy, Commander," he said. "But neither will I live long enough to be a sucker again!"

MARTIN BRAND stared unseeingly across the wastes of the lunar plain stretching back toward the towering heights of the Liebnitz from which he had just come. Ringing still through his brain were those words he had spoken ten long years before. They had been the basis for the Martin Brand the solar system now knew as "Suicide" Martin Brand, the luckiest man alive—and the most daring.

Ten years ago his life had been blasted into a terrible bitterness. Now, today, when he had thought the wound scabbed over with time, a voice had come out of the ether, from a crater-hopping little escape ship, tearing it wide open once more. A voice that he hated, a voice he had thought he'd never hear again.

"He isn't dead!" Brand's voice rang with hate and shock in the tiny confines of his little pursuit ship. *"Jeffry Killian is still alive!* He didn't drown when his ship cracked up . . ."

The full significance of it jilted home in his mind.

"The rat cracked her up, thought she was dead, and ran out on her like a coward. And she *knew!* She was insane, but she still remembered he'd run out on her! And later—he must have known it!—hearing that she was insane, he never came back. Let her shift for herself . . ."

Martin Brand's face writhed in an old hate, now reborn to full growth in a terrible manner.

"I'll get you, Killian!" he swore. "I'll get you, *if I have to tear the whole Moon apart!"*

Beneath the savage pressure of his fingers, the pursuit rocket roared up from the age-old dust of the lunar plain, shot over the wrecks of the ships he had shot down, and out into space toward Earth.

CHAPTER II

The Girl in the Moon

THREE days later, Martin Brand, dressed in the rough garb of a prospector, peered from the porthole of the limping freighter which was settling

down past the huge rim of the crater that exactly centered the side of the moon eternally hidden from Earth. He watched with interest as darkness settled around the ship. The gloom became deeper as the ship sank into the bowels of this pock-marked world.

As he watched, the admonishing words of Commander Wilson rang in his memory. *It's a tough hunch you're playing, my boy. If it really was Jeffrey Killian you saw, then something is going on inside Luna that's no good at all. No good at all! And whatever you encounter will be strictly your own funeral if it blows up in your face. But good luck, son. Somehow, soon, we've got to smash that Martian infiltration, or it's curtains for Earth.*

Yes, it would be strictly his funeral —because now he wasn't Martin Brand. He was Robert Wales, and Robert Wales was an outlaw, on Earth. He'd lost his citizenship because of seditious acts. Oh, yes, the rest of the solar system would accept him without much question. His wasn't a universal criminal act. In fact, much of the solar system would secretly approve of an Earthman who was a seditionist. Mars especially, and perhaps Venus. On Luna he would use still another name (he'd selected Edgar Barnes) because Luna was anxious about Mars, and curried favor from Earth. And too, she was a bit irritated because Earth politicians stuck bull-headedly to their isolationist policy. And Luna, too, resented being a "buffer" between Earth and Mars, without getting credit for it.

If Luna discovered that Edgar Barnes was Robert Wales she might deport him. Certainly not to Earth, but very likely to Venus. So Martin Brand intended to play his dual role with all the cunning—and uncanny luck—that was his.

The freighter was dropping now into an illuminated area. Light came from below, and suddenly with the shock that it always brings to persons making a first descent into the hollow world, the breath-taking spectacle of the cavern's immensity opened out beneath him. There was a city there. A modern Lunar city, built, precariously it seemed, on a terrific slope. How it could have remained there was an incredible mystery.

Brand shifted his body, and the mystery became a mystery no longer; for he almost fell, with a new shift of balance from a new center of gravity. The precipitous slope on which the city stood became a flat plain, and the black hole of the crater through which the ship now emerged shifted from its former vertical appearance to a low-slanting shaft that bore off at an angle.

A moment later he adjusted himself to the sudden change in direction, found the new "down," and regained his equilibrium. And when he had accomplished it, the ship shuddered with the contact of its faulty landing in the rocket cradles at the city spaceport.

MOMENTARILY as he walked down the gangplank, reeling slightly with the unaccustomed light gravity in spite of his leaded shoes, Brand wanted to laugh aloud. But he stopped himself as he heard several others laughing boisterously, then peering around with a foolish look on their faces. There had been nothing to laugh at. Brand grinned faintly at their discomfiture, realizing the cause of the unseemly mirth. Oxygen. The atmosphere of this inner-lunar world was artificial, and richer in pure oxygen than that of Earth. Its too-swift stimulation often caused this reaction when first breathed into lungs unac-

customed to it.

Brand stopped grinning as he saw a girl, standing just outside the gate of the spaceport, looking at him with what he was certain was startled recognition. But she was a perfect stranger to him, and he frowned. Her face now, as she saw him looking at her, went cold and emotionless and casual.

Brand walked over toward her, seemed about to pass without further notice, then whirled upon her.

"Do I know you?" he asked abruptly.

It seemed to him that she drew in her breath just a bit too sharply.

"No," she said in a low voice, staring straight at him. "You don't."

"Wrong reaction," he said flatly. "You're supposed to say: 'Can't you think up a more original approach than that—go fry your hide.' I know I don't know you. But I'd swear you know me."

She continued to look at him levelly.

"What is your name?" she asked. "If you're well-known enough, I might have heard of you."

"Edgar Barnes," he answered. "Prospector."

"No," she said. "I don't know you."

She turned and walked away.

Brand watched her retreating back a moment, noting the lilting sway of her body, the grace of each step, the proud carriage of her head. He saw too the rich red-gold of her hair, and remembered that her eyes had been a startling deep blue. Also that her lips had been anything but forbidding, even tightly drawn as they had been in what he could not certainly identify as deception.

Had she recognized him, or hadn't she? *Was* she concealing an initial betrayal of such recognition, or had she, like himself, been surprised at the laughter caused by the oxygen in the air? But *he* hadn't laughed; why look at him?

He shrugged, turned and strode through the city streets.

AHEAD of him he saw a brilliantly lighted cafe. Its neon lights proclaimed it as the "Star Club." Parked in front of it were sleek aero-cabs and several fast, low-slung compression flyers.

Brand nodded to himself.

"There's where I'll find some of the big boys. Perfect front for intrigue."

He turned in at the entrance, was halted by a doorman.

"You can't go in, dressed like that."

Brand grinned.

"Call the manager," he said, "unless you'd rather take this ten-spot yourself.' I've got a little to unload . . ."

The doorman snatched the bill Brand palmed to him, grinned back, and said, "Sure. The boss'll understand when I give him the sign. And thanks . . ."

Brand followed a waiter to a small table to one side, seated himself and ordered a drink. Then he sat quietly, listening to the haunting strains of the Lunarian stringed orchestra which was wailing its odd cadences for the voluptuously swaying dances of the couples on the dance floor.

Lunarian dances were the ultimate in sensuous expression, and after a few moments Brand snorted. He downed his drink in a gulp when it came. The waiter lifted his eyebrows, and Brand ordered another, loudly.

Several men nearby looked at him, studied him a moment.

One of them got up and sauntered over. He was dressed in evening attire, and immaculately groomed. But there was a queer tightness of his suit around the chest, and Brand's eyes narrowed slightly as the fellow sat down opposite him. There was a shoul-

der holster under his arm, and a steam-gun in it. There was no mistaking that tell-tale tightness, for Brand.

"Prospector?" queried his guest.

"Of sorts." Brand shrugged. "Just landed. Thought I'd try my hand in the caves."

"Bad business, those caves," said the stranger affably. "Takes a good man to browse around in 'em. Never prospected myself, but I've hunted lu-bats in those caves. Incidently, my name's Ormandy. Saw you down that drink, which is exactly how I feel at the moment. Mind if I join you in the next?"

"Why should I? Maybe you can give me some dope on the caves—that's worth sharing a drink."

The waiter arrived, and curiously he had the other man's drink on his tray.

"They know me here," explained Ormandy. "When I sit down at a table, any table, they stick it in front of me."

"Not a bad thing," grinned Brand. "Saves time."

He lifted his glass, then held it rigidly in his fingers for a moment. There, behind Ormandy, across the room, was the girl Brand had accosted at the spaceport. There was no mistaking the red sheen of that lovely hair. And once more she was staring at him. This time there was no recognition, just a studied attention that held him motionless with surprise for an instant.

"What's up?" queried Ormandy. "See a lu-bat?"

HE TURNED to stare in the direction Brand was looking, raised his eyebrows.

"Say," he said in approval. "Don't blame you for looking. She's strictly inner-world!"

Brand recovered himself hastily.

"Yeah," he agreed, tossing his drink over his shoulder into a potted palm as the girl looked away. Ormandy's head was still turned. Brand smacked his lips and put his glass down.

Ormandy drank his, then leaned on the table.

"You haven't introduced yourself," he said. "Not curious, but ought to have a handle to hang on you. Any one'll do."

Brand grinned.

"Ed Barnes," he said. "Just an ordinary name, but it's done me this long, I guess you can use it too."

"Y'know," said Ormandy. "For a minute I thought you were somebody else. But I guess it's that deep coat of space-tan you've got. Either you've been prospecting the airless asteroids, or been rocketing around space for a spell."

"Both," said Brand. "In fact, this is the first air outside of a tank I've breathed in a long time. Except on the freighter that brought me here. I shipped on from a space station out of New York. Intended to go to Earth, but decided against it. I've always wanted to try the Luna caves."

Ormandy reached carelessly into his vest. When his hand came out, there was a small steam pistol palmed within it. The tiny opening in the barrel was all that was visible to Brand as he stared at the hand. He didn't move a muscle.

Across the room a nattily-dressed American space lieutenant lifted his voice in a popular space song which the orchestra was playing at the moment. His voice rang out clearly, but slightly tipsily in the quiet that seemed to have fallen over the room.

"Let me tell you of a girl
I met among the stars.
Her eyes are blue as Rigel;
Her lips as red as Mars."

"Ten years ago," said Ormandy softly, "I stood in line at a wedding ceremony, my sword at the ready. I was prepared to add my weapon to the arch through which a young couple were to walk in a few moments. But the wedding never came off. It seems the man who was to form half of that team was being jilted . . ."

Brand's face tightened just a trifle and he looked hard at the man across the table from him. But he said nothing. Instead, queerly, the song's second verse registered in his ears, and he listened to it as he studied Ormandy's eyes.

"Nowhere in all the system
You'll find a girl like she;
And you can bet your ray gun
That she's the one for me!"

Ormandy's voice went on:

"That man was just a lieutenant in the space patrol then. I was also one, but I had other interests. They had something to do with a situation that was only beginning then. I didn't know at the time that the man who was being jilted would be so bitter about it that he'd become a thorn in my side later on. Of course the interests for which I planned then were in their infancy. Today they are quite well advanced . . ."

"Her hair is like the ghostweed
That drifts on Venus' sea.
From top to toe a figure
As perfect as can be."

"It would be a shame to let any possible harm come to them now. So that is why you are looking into the muzzle of a very efficient little steam-gun right now, Mr. Martin Brand. 'Suicide' Martin Brand, I believe is the popular designation. Which at the moment is quite appropriate indeed."

"PERHAPS," agreed Brand. "I've gotten to depend on my luck so much that I often stick my head into the lion's mouth like this. Someday it's going to make me careless."

"Like now?" questioned Ormandy softly.

"Maybe. But how'd you spot me?"

Ormandy frowned.

"Recognized you, of course," he snapped.

"That's a lie," said Brand. "In the first place you've never seen me before, and in the second place you never were at any wedding. Every one of the boys in that line, with or without swords, were my friends. All except the one who ran off with my girl, cracked up with her, and ran off like a rat, leaving her to a life of insanity. And thirdly, I don't look like Martin Brand at all. I'm a mess of plastic."

Ormandy looked at him a moment, then he laughed contemptuously.

"You're smart, Brand. But so what? Right now you're going to walk out of here with me, climb into the black aerocab directly in front, and sit tight. The driver knows me quite well. In fact you might say he's a friend. He'll never remember having taken a fare anywhere tonight. Especially a prospector named Ed Barnes. But then, nobody'll ask. Nobody'll ever see him again. Not when his body drops into Black Hole."

"Black Hole?"

"Crater that goes nowhere that anybody's ever been able to discover—and come back alive."

"Oh, I see."

Brand's eyes strayed a split second over Ormandy's shoulder, saw with surprise that the girl was gone. Her drink stood on the table at which she'd been seated. It was untouched.

"Get up," ordered Ormandy. "The drinks are on me. Just walk out."

Brand got up. He nodded casually to

the doorman as he walked past. Ormandy was a few paces behind. Outside Brand waited.

"That cab," indicated Ormandy.

Brand glanced around carefully. In a doorway to one side of the brilliantly lit marquee of the Star Club he saw a glint of red. There was a slight hiss, a tiny white lance of light that came from the doorway, ended in the temple of his captor. Ormandy sighed, slid gently to the walk, the steam-gun dropping from his nerveless palm.

Brand stooped, scooped it up, whipped open the door of the aero-cab, and trained the weapon on the startled driver.

"Start going places!" he snapped. "Fast!"

He leaped in, turned once to see the figure of the mysterious girl in the doorway. He saw her return a steam-gun to her bodice, then disappear into the Star Club's side door once more. On the walk before the cafe the body of Ormandy lay like an ink-blot. For the instant no one was in sight. Then the doorman came running out, and several pedestrians began to converge on the corpse. Then the scene vanished from view as the aero-cab lifted, shot into the darkness over the city.

CHAPTER III

Music in a Madhouse

THE girl sitting in the easy chair in the solarium was staring blankly at the landscape that spread out before her beyond the wide-flung windows admitting the morning sun and air.

Behind her an ornate radio played softly, rendering the symphonic tone poem, *Rakastava,* of Sibelius. Its notes were muted, low, distant. They were soothing, restful. And the girl who sat so still seemed lost in them. Her eyes were fixed on nothing, her body relaxed. Yet, beneath the calm exterior there was a strange tension that betrayed itself in tiny, tense wrinkles around her eyes, on the bridge of her nose. And especially in the nervous twitching of the fingers of one hand.

Moving softly, furtively around the room, an aproned girl dusted furniture with almost fearful industriousness. Often she glanced quickly at the quiet figure in the easy chair, then snatched her attention away again to return to her work.

Someone appeared in the doorway. The maid glanced up.

"Good morning," said the newcomer, drawing a brilliant robe around her figure and pausing in an expectant manner, awaiting an answer. None came from the girl in the chair, but the maid rushed forward on tiptoe, one startled finger to her lips in an unmistakeable gesture.

"*Quiet!*" she hissed. "Do you want to make her violent again?"

"Oh shush, Olga," said the visitor, pushing back a lock of graying hair from her more than middle-aged face. "She isn't going to be violent. She's no more crazy than I am—or . . ." she fixed a stern glance on Olga's fear-ridden face, ". . . or you." There was doubt in her tones and Olga reddened. Flustered, she returned to her silent pursuit of dust that didn't exist. But under her breath she mumbled.

"Crazy? Miss Pennyfeather, you're *insane!*"

If Miss Pennyfeather heard, she gave no indication. Instead she walked over to the girl in the easy chair and sat down on the window ledge directly before her, cranning her neck to bring her gaze directly into line with the girl's blank stare. For a long moment she peered.

"Good morning, Estelle," she said.

There was no answer. Miss Pennyfeather looked irritated. She inched herself more directly in line with Estelle Carter's gaze, rising to a half-sitting position that gave her the appearance of a poised scarecrow undecided as to whether to fly away, or to collapse in a heap.

There was no evidence that Estelle saw her visitor. Miss Pennyfeather became more irritated. She reached out a hand to still the fingers of the girl's hand. Then she sat back again. A judicious look crossed her face.

"It's that music," she decided. "It's too spiritless. We must have something with fire; something to wake us." She got up, walked over to the radio and snapped a switch. Then she fumbled around in a record cabinet, uttered a triumphant exclamation, came up with a disc in her bony fingers.

"This is better! *The Ride Of The Valkyries,* from *Die Walküre,* by Richard Wagner!" She read the title with gusto. "This will brighten us up!"

She inserted the record, snapped a new switch. Then she turned up the volume slightly and returned to her seat on the window ledge. She tossed a defiant stare at Olga, who had been standing disapprovingly in one position while Miss Pennyfeather launched her campaign for "brightening things up."

"Go about your work, Olga," she said sharply. "That radio is simply filthy with dust." She rubbed her fingers on her skirt with distaste.

Olga frowned and returned to the chair on which she had been working. But she cast an exploratory glance at the radio and squinted.

The strains of the Wagnerian music began swelling through the room, building up to crashing chords. Miss Pennyfeather sat patiently waiting for her "brightening up" efforts to take effect on her victim.

"THOSE stars keep racing around," said Estelle abstractedly. "And I hate racers."

Miss Pennyfeather lifted her eyebrows.

"Stars?" she asked. "Where do you see stars racing?"

Estelle's eyes focused on her visitor's face, as if seeing her for the first time.

"I *don't* see them," she said. *"He's* a star. A star racer. He's won so many medals. But he always runs away. He's a coward, and I hate him."

"Don't you love anybody?" asked Miss Pennyfeather.

"No. Men are such fools."

"Hasn't anybody ever loved you?"

Estelle laughed.

"Certainly. But I didn't love him. He wanted to buy a little house and tie me down in it. He was so old-fashioned. He knew how to kiss, and that's all I wanted . . ."

The girl's gayety vanished suddenly, and she leaned forward in her chair. An anxious look came over her features.

"I hear his voice!" she exclaimed.

Miss Pennyfeather frowned.

"The only men here are Doctor Allen and Doctor Deakin," she said. "And you couldn't hear any voices outside anyway. The music is getting too loud."

Estelle relaxed again, and her fingers resumed the twitching motion.

Behind them Olga neared the radio. She peered at it closely.

"Filthy with dust," she whispered. She began polishing it with her cloth, an ecstatic look in her eyes. Her fingers accidently touched the volume control, turned it over to full strength . . .

With startling suddenness the music roared out deafeningly. The climactical chords of the tremendous selection shook the walls.

Estelle Carter leaped from her chair, healthy body galvanized into swift motion. Her shrill scream rocketed through

the air, even above the blasting radio. Her face was a mask of shock and surprise and terror. She ran back and forth, as though seeking an escape. Her hands clasped over her ears, and she screamed again and again.

"Martin! *Martin!*"

Miss Pennyfeather looked as though struck by lightning, Olga crumpled to the floor next the radio, crying in hysteria.

Estelle shrieked once more, then fell to the floor in a faint.

Miss Pennyfeather leaped into action. Terror on her face, she rushed through the doorway, colliding with the form of Doctor Deakin. She recovered, and rushed on down the hall, passing Doctor Allen with averted eyes, turned into her room.

"Turn off that radio!" shouted Doctor Allen, reaching the solarium. "Good God, there's no telling what this shock will do to Miss Carter!"

The blasting thunder of the music cut off abruptly, and only the sobs of the maid filled the room.

"Get Olga out of here, Deakin," directed Doctor Allen. "I'll take care of Miss Carter. I'm afraid this might be serious. It's enough to kill her, or cure her . . ."

SEVERAL days later the two men faced each other in their office.

"What's the verdict, Allen?"

Doctor Allen leaned back in his chair.

"Cured! Completely cured! That shock absolutely counteracted the one which deranged her mind in the accident. She's as sane as you or I. And she knows it. She has a fine mind, or she couldn't have taken the revelations of the past few days without suffering a breakdown. It's quite a lot to take to realize you've been insane for ten years."

"You're going to release her?"

"Certainly. Fortunately she has quite a sum still in her fund. That is being turned over to her. I have no doubt but what she'll find a place for herself without difficulty. She's a clever girl—even brilliant. I've been amazed at the extent of her knowledge and her intelligence rating."

"You don't fear a relapse?"

Allen shook his head.

"No," he said slowly. "I don't. There's something pretty solid in her mind. Perhaps the combination of those two shocks has accomplished something that might not otherwise have been possible. She's as cold and analytical as a mathematics machine. If anything, she's too sane. Her emotions are under a powerful mental control. What she really needs is the outside world. I might even hope that she'd fall in love, although the way she's constituted now, I'd hardly think that was possible. Anyway, she's leaving us today."

"Where's she going?"

"Says she has hopes of a business contact with a fellow named Jeffry Killian."

"Jeffry Killian! Why that's the man she cracked up with. He's dead—drowned in the wreck!"

"Eh!" exclaimed Doctor Allen, startled. "Eh!"

He settled back in his chair, a puzzled look on his face, then, after a moment, it cleared.

"That's too bad," he said. "But maybe it has its compensations. After all, sorrow is akin to love—it's an emotion. And that's what she needs. Once emotion returns to her, she'll be a pretty fine woman. I think I'll just let her go, and find out about Killian for herself. She can certainly take the shock, and it might soften her nervous system up a bit."

"It might . . ." said his companion dubiously. "Perhaps it might . . ."

CHAPTER IV

Into the Black Hole

MARTIN BRAND poked the steam-gun into the aero-car driver's back with a vicious jab.

"Was the guy back there your boss?"

"No. I'm just a taxi driver."

"You lie. I know all about this set-up. And I'm here to break it. I intend to break it."

The driver turned half around.

"What set-up?" he asked. "I ain't in no set-up . . ."

"Keep on driving, and face front," ordered Brand grimly. "And make for the Black Hole. We've got a little date there."

He saw the red neck of the driver go pale.

"What you going to do?" he quavered.

"Kill you," said Brand laconically.

He saw the driver's knuckles go white on the steering wheel. But the face remained rigidly toward the front. The aero-car drove on through the darkness beyond the city, through the artificial atmosphere of the great cavern that was the inside of the moon.

Straight up, a thousand miles away, was the other side of the cavern. And pockmarked everywhere were great black areas that betokened uninhabited areas, and bright spots that indicated cities. To one side, the side facing the sun, several bright spots indicated craters that extended straight through the crust, similar to the giant one which provided the main access to the moon's interior down which Brand had come in the freighter.

Dimly, across the black void above them, paths of light indicated the sun's beams, shooting down from the surface, penetrating. But in the windless interior, no dust floated, and dust motes did not break up the beams and make them the brilliant shafts they are in Earth caves.

Only opposite the creater through which the beams entered did the sun's rays add any appreciable light to this stygian inner-world. There brilliant white spots outglowed the artificial light of cities, but were easily confused with the cities.

Brand knew that were they further out from the surface, he could have seen the huge black hole that was their destination. But now, he knew, it was impossible to see. It might be on the near up-curving horizon in almost any direction. And Brand felt with certainty that the driver of the aero-cab was *not* going toward it. He'd seen him cautiously, with extreme slowness, so as not to make it noticeable, change his course several times. And Brand knew this was just a means of determining if he, Brand, knew where the Black Hole was.

With an inner smile playing about his lips, Brand waited, eyes and ears open, on the alert.

The driver indicated a black area just ahead.

"There is the beginning of the Black Hole crater," he said. "What do you intend to do with me now?"

"Go directly over it," Brand said. "And then drop down into it slowly."

THE man complied, and the little vessel dropped slowly down in a direct vertical.

Brand seemed intently watching the crater walls, shrouded in blackness, but in reality, his attention was fixed on the driver. He saw the slow tensing of the tiny muscles in the fingers of his right hand as they drew near to a certain outcropping of rock that formed a rather wide ledge. Here was a dim glow, more a lesser black than a light,

and Brand saw that even a space ship could land on the ledge with room to spare.

But their aero-car was several hundred yards out from it, and descending very slowly.

Suddenly Brand acted. He leaped forward, raised the steam-gun, brought it down on the driver's head just as the man's right hand shot out toward a button on the dash. The driver uttered a little moan, slumped over the wheel. The aero-car began a whistling dive down into the crater darkness.

Brand wrestled the inert body from the chair, threw himself at the controls. In a moment he had halted the downward dive, bore the ship off in a slanting zoom away from the danger of crashing the walls, then hung for a moment, getting his bearings.

Above him was the landing ledge he had seen before. Sure that he hadn't lost the clue it had given him, Brand began to drop the ship slowly again. Into pitch darkness they went, and Brand couldn't see his hand before his face. He kept one ear cocked to the stertorious breathing of the driver, who was still unconscious. Any change in it would indicate returning consciousness.

Abruptly the aero-car bumped solid rock. Brand turned off the motors. A quick flash of the lights, on dim, showed that he had reached the floor of this particular pit. It was certainly not the Black Hole. No terrifying depths. In all, it was perhaps three miles deep, and small in diameter at the base.

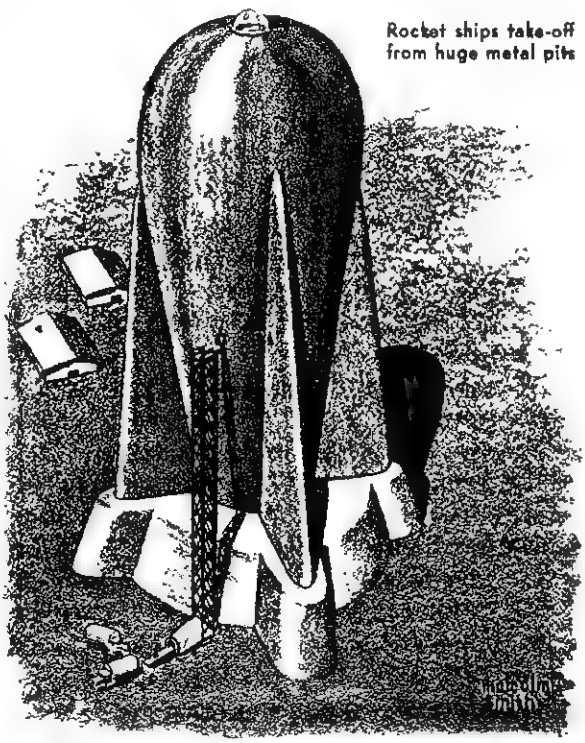
Brand lifted the unconscious driver from the floor, stepped out of the cab and deposited him on the crater floor. He placed a small package in the man's pocket, searched him for weapons, found none, and after a moment of thought, left a small flashlight. It was a weak, two-celled affair, and its beam would penetrate the gloom only a few feet.

Then Brand stepped back into the aero-cab and started back up the shaft of the crater toward the ledge above.

HE drove the ship silently down toward the far end of the great ledge, landed in pitch darkness close to the crater wall, under a slight overhang of rock. There he turned off the motors and left the ship.

Slowly he made his way through the inky blackness on foot, carefully feeling his way along the rocky wall, extending an exploratory foot forward before definitely taking each step. In this manner he proceeded for nearly an hour.

The dim light on the ledge grew



Rocket ships take-off from huge metal pits

stronger, and suddenly Brand discovered the reason for it. Here and there, in patches on the rock wall, a dully-luminous paint had been splashed. He grinned. His hunch had been right. The driver of the aero-cab had been intent on flashing on all the lights of his cab, attracting attention to him, and being rescued from his plight. He had firmly believed that Brand intended to kill him, and had tried the last desperate measure he knew to save his life—and in so doing, had betrayed the hiding place of the men for whom Brand was seeking.

Here in this pit, somewhere along this ledge, there must be an opening, big enough to admit space ships, and big enough to be used as a base for the fifth column activities Brand sought to uncover and destroy.

Perhaps now, at last, he would come to grips with the master criminal, the Martian genius who was building up the secret springboard for an all-out offensive against Earth—the offensive that Earth authorities and Earth people alike scoffed at, because they believed in the impossibility of an invasion across from 41,000,000 to 134,000,000 miles of space.

He went on, able to see dimly now in the phosphorescent glow of the luminous paint splotches. He no longer had to feel his way, and he held his steam-gun at the ready, prepared for any surprise.

Here, he felt sure, having observed the covert actions of the aero-cab driver, he could expect to find sentries. At least someone to whom the signal light of the aero-cab would have meant something, and to whom a bright light would have meant apprehensive action.

Alert, he went on, soles grinding softly in the sandy pumice of the ledge-floor. Before him he saw a black area in the cliff-wall. It was a cavern opening. And on both sides of it were groups of heavy boulders. Behind them several men could have hidden very easily.

Brand dropped on all fours and crawled along on his belly, taking every possible concealment. There was no noise. To Brand, the scuff of his own body in the sand sounded almost thunderous.

Therefore it was with surprise that he stopped his progress, becoming rigidly immobile at sight of a dark figure seated with back against a rock. The man was smoking a cigarette, and the tip of it glowed redly as he sucked in on it. His face was illuminated, and Brand's pulses leaped.

A Martian!

He'd found it. There was no doubt but what this was the hiding place of at least a part of the fifth column Mars was establishing on Luna. This man was a guard. Across his knees was a long atom rifle. One that could easily shoot down an aero-car at a distance of several miles. Brand knew the weapon, a deadly invention of Earth, stolen by spies and duplicated in Martian factories. It had been used to potent advantage in the Martian invasion of Callisto. It had telescopic sights that were the marvel even of astronomers, so perfect were they, and so great their range.

THE Martian seemed certain that his duty was an unnecessary one, and that it would never happen that an intruder would find this ledge, or attempt to land on it. Glancing out into the void of the interior of Luna, Brand saw that any ship without lights, such as the aero-cab in which he had come, would be perfectly invisible against its curtain, unless it chanced to cross a spot of light that betokened a city on the other side, or blundered

into one of the shafts of sunlight that lanced almost invisible across the cavern. It was obvious that the guard had not seen the aero-cab descend. Nor could he see a light from the crater bottom, because it would be necessary for him to go directly to the ledge termination and peer over.

Slowly Brand crept forward, gun in hand. The guard smoked his cigarette down, flicked it away into the darkness. Then he climbed slowly to his feet. His seven feet of height towered over Brand, who froze motionless again. The guard held his rifle easily in his two hands, stretched his great shoulders and yawned.

Brand rose slowly to his feet, advanced. A pebble crunched beneath his feet.

The guard whirled, his gun came up with amazing swiftness, the muzzle pointing directly at Brand's body. Startled by the dexterity of the fellow's movements, Brand had time to do no more than press the trigger of his steam-gun. A white lancet leaped out, struck the Martian in the abdomen. The Martian doubled over in agony, but retained his footing, bringing his gun once more into line.

Brand shot again, swiftly, surely, and the steam lancet ended its trail of death directly between the guard's eyes. Like an empty sack of brittle burlap which refused to flatten out, the Martian's fragile body collapsed. He lay motionless on the pumice, dark blood oozing from the wound in his head.

"He wasn't so off-guard at that," muttered Brand. "And it wasn't so good for him. It cost him his life. If I could have sneaked by . . ."

But then he laughed.

"What am I feeling sorry for? These fellows intend to murder millions on Earth, if we give them the chance!"

He stepped over to the body, searched it. He found nothing but a pack of cigarettes, which he pocketed, some matches, a second steam-gun in a holster, and a belt of ammunition. He picked up the atom gun, hefted its long length, then retraced his steps toward his ship some hundred yards, cached it along the base of the cliff-wall.

Returning, he lifted the Martian's body, carried it to the edge of the ledge and hurled it over.

Then all traces of his activities over, he made his way into the black opening of the cave. Rounding a bend, a source of illumination became visible, and he saw that ahead there was a broadening of the tunnel, plus several branching tunnels that led off at angles. Obviously this was a complex system of caves and tunnels—an ideal hiding place for Martian agents and Lunarian fifth columnists.

Following the illumination, Brand crept forward, nerves tense with caution. He progressed several hundred yards before the illumination became bright enough to follow without feeling his footing. He could now see the rock underfoot, and he realized that this was no artificial illumination, but a natural glow that emanated from the rock itself.

So far he had seen no signs of the human occupancy that he sought, and his brows furrowed in puzzlement. Why bury themselves so deeply? Obviously, farther ahead, there was a huge cave, lit with phosphorescence, but peering at the tunnel floor, Brand could see no traces of any passage through the sand and scattered pumice. In fact, looking back, his own footprints showed clearly and distinctly.

BRAND halted. Something was wrong about this. If the enemy used this tunnel as a hideout, they either carefully obliterated their trail, or entered by another route. Perhaps the

right way was one of those other diverging tunnels back behind him? But they had not been illuminated. The light had drawn him here.

Brand went ahead more slowly, came into the main cavern, a large place perhaps several miles in diameter. It was entirely empty. One glance was enough to tell him that. There was no possible place in this huge lava-bubble where anything as large as a rat could have hidden.

"Wrong trail!" exclaimed Brand in annoyance. His voice echoed and reechoed from the walls of the cave with startling repetition. Brand clenched his lips shut in tight alarm. That had been foolish. Those sounds might echo for miles through these tunnels.

When silence descended again, Brand took a last look, saw a tiny black opening in the wall several hundred feet away. He walked toward it cautiously. It led into pitch darkness.

Was this the way? Was he on the right trail at that?

He stepped inside, walked on into gloom that grew, until with a turning of the passage it became complete. Once more he was forced to feel his way along. After a time, certain that he was in a tunnel that had no branches and was very limited in diameter, the sound of his footsteps ceased abruptly to echo back to him, and became almost soundless. He halted. He had emerged into a space more vast than any he had yet been in. That was obvious. About him was the atmosphere, the feeling, of sheer immensity. Of empty distance.

Nor were there any tunnel walls to guide him. He realized that another step might plunge him into a bottomless pit. Very obviously this was not the hiding place of the people he was seeking. Better retrace his steps . . .

A rustle out of the darkness brought him around in sudden alert, gun at the ready. Looming over him, swooping down with incredible speed, was a shadowy monster, giant-winged, reptile-bodied. It glowed with a pale violet radiance all its own, appearing as a ghostly and very huge bat. Brand knew it instantly for what it was, although this was his first sight of such a creature. This was the dreaded lu-bat of Luna's caves! And it was attacking him, was almost upon him.

Desperately he raised his steam-gun, trained it on the body, depressed the trigger and held it there. The white lance leaped out, played over the luminous violet of the body. But apparently nothing was happening. The monster didn't veer in its downward course. Brand could hear the whistle of wind as it planed down at him now. He kept the steam-gun pouring out its lancet; crouched down flat on the pumice floor.

Suddenly, with devastating effect, the white lancet took effect. With a tremendous roar, and a blinding flash of light, the lu-bat exploded. Brilliantly flaring fragments of it scattered and fell like meteors, or star-shells on a battle-front, into a tremendous crater.

Brand saw that he was within yards of the edge of this vast depression in the moon's inner surface. Also he saw that there was apparently no other side, even in the brilliant white light that came from the flaming fragments of the lu-bat. Undoubtedly his steam-gun's intensely hot ray had caused a chemical combustion in the gaseous interior of the lu-bat, releasing the radioactive elements of its make-up in flaming pyrotechnics.

But the others things that Brand saw in the brilliant light made the immensity of the depths before him inconsequential, even though he realized that he stood now on the rim of the famed Black Hole of Luna, the crater

that had no bottom and had never been safely explored. Because floating there under a ledge, concealed from above, but starkly revealed in the brilliant white light that was dying now as the lu-bat disappeared miles below still falling freely, was a giant space battleship! And behind it was another—and behind that a third. Brand could see no more, because darkness became complete. But registered on his dazed retina was the unmistakable identity of these super-warships. They were Martian!

CHAPTER V

An Unexpected Rescue

NOW a brilliant light bathed Brand in its rays and a voice behind him said:

"Get up your hands, Mister! And drop that gun."

Brand turned slowly, his steam-gun dropping to the pumice at his feet. He tried to see beyond the bright flashlight trained on him, but couldn't.

"That's the first time I've ever seen a lu-bat knocked down with a steam-gun," said the voice. "Usually it takes a heavy atom rifle to get 'em. Never been tried with a steam-gun before, though, as far as I know. It would be too silly to try, or would have been, up to now. It seems, handled right, they do a pretty fancy job."

Brand was silent, waiting for his captor to make a move.

"Who are you?" asked the man behind the flashlight.

"Robert Wales," said Brand.

"What are you doing here?"

"Isn't that a rather silly question to ask?" Brand put in. "Judging from what I saw anchored out there . . ." he waved a hand in the direction of the Martian battleships he'd seen huddled against the crater wall ". . . I have a faint hunch my business here is of the same nature as yours."

"Judging from what you saw anchored out there," said his captor, "you haven't any business of *any* nature that you're going to be doing."

The man with the flashlight moved around behind Brand, and in the light, Brand saw a pathway leading toward an opening other than the one by which he had reached the Black Hole.

"Walk that way, ahead of me," directed the voice behind the flashlight. "We'll have a little business discussion with some people I know . . ."

Brand began moving. They moved for several hundred yards, then came to a door built into the tunnel. A guard peered forth, then the door opened.

"What you got there, Joe?" asked the guard, eyeing Brand.

"A guy I found out in the Black Hole, snooping around. He just shot down a lu-bat with a steam-gun. You should have seen the fireworks. Most amazing damn thing I ever saw. Lit up the whole crater . . ."

"Lit it up?"

"Yeah. For miles."

"Then . . ."

"Sure. I'm taking him to Jeff. He's seen too much, and besides, he ain't a lu-bat hunter. No lu-bat hunter ever went after those babies with a steam-gun!"

"I'll say," grunted the guard. "But then, nobody ever shot one down with a steam-gun either, until now!" There was frank admiration in the soldier's face.

BRAND'S captor ordered Brand ahead, and they advanced into a warm, lighted series of caverns. Down several branches, Brand saw many men, most of them in the uniform of

the space navy of Mars. His lips tightened at the sight.

"Commander Wilson," he muttered under his breath, "this isn't any sabotage, any fifth column . . . it's a full-scale invasion, practically ready to go!"

"What's that you said?" asked the guard sharply.

"I said this's a pretty fancy set-up."

"Yeah, fancier than you think . . . turn right, in that next room."

Brand obeyed the sudden order, entered a small room where two more guards stood, rifles in hand, rigid at attention. There was a distinct military pose in their bearing—but they were Earthmen.

Brand's captor saluted.

"Sewell, reporting to Commander Killian with a captive," he said.

Brand whirled on the man.

"Killian!" he exclaimed. *"Commander* Killian!"

"Of course. He's in charge here. But about-face, and march in. You'll be glad to see him, no doubt, if he's an old friend of yours—and in the same business!" The fellow who called himself Sewell grinned mockingly.

One of the guards opened the door, and Brand stepped through, his jaw tense, his teeth biting together so hard his jaw hurt. In his mind one raging thought flamed. Jeffry Killian was the man he sought. *Jeffry Killian was the mastermind, the arch criminal, the power behind the treachery on Luna!*

He faced the man who sat behind an ornate desk, dressed in a plain khaki uniform without insignia of any kind.

"Come to deliver your message to the *boss?"* queried Jeffry Killian softly.

"No!" said Brand savagely. "I've come to kill you! And the only thing that'll prevent me is for you to kill me first."

Jeffry Killian rose to his feet. His face was cold now.

"That can be arranged," he snapped. "I promise you that you will die. But first, I have a few things I want to talk over with you."

"Talk away!" blazed Brand, reeling under the wave of hate that was washing over him now. "I've got some talking to do myself. Some things I've been saving up to say for ten years . . ." He choked. "You scummy, cowardly, yellow rat!"

Killian stepped out from behind the desk, signaled covertly, and Brand found both his arms grasped by the two guards. Then Killian lashed out with a fist, flush to Brand's face.

Brand reeled under the blow. Another smashing punch sent him to his knees. He clambered back up again, eyes blazing, lips tight, but silent. At the look in his eyes, Killian stepped back, shrugged.

"That'll teach you to keep your mouth shut," he said.

He turned to Sewell.

"What's your report?"

"I FOUND him on the edge of the Black Hole. He was attacked by a lu-bat. Shot it down with a steam-gun . . ."

"Steam-gun!"

"Yes. Kept it trained on the body, and something must've happened inside. It blew up and burned with the brightest light you ever saw. Lit up the whole crater for miles around. This gave him a good look at what we got hid out there. So I stepped in and stuck him up. He said his name was Robert Wales. Also said his business was the same as ours."

Killian laughed grimly.

"Sure it is. He's a spy, but for the other side. You can go now, Sewell. And good work. I'll see that you get a captaincy out of this."

"Thank you, sir," said Sewell, and

saluting, turned and went out.

Killian eyed Brand a moment.

"Just how'd you find me?" he asked.

Brand laughed.

"By the stink!"

Killian tensed, then smiled.

"Pretty crude, Boy Scout," he sneered. "About the answer I'd expect from a man of your intelligence. You never were any good at anything that took any special ability outside of sheer luck. But you can bet your bottom dollar that your luck's run out now! You aren't going to get out of this with a whole skin. And besides, isn't that what you've always claimed you wanted? Bellyaching all over the solar system about pulling Death's tail? 'Suicide' Martin Brand! That's a laugh. And all because of a woman. How a guy with as little balance as that ever got old enough to vote, is beyond me."

Killian sat down again.

"By the way, whatever happened to Estelle?"

Brand's face went white.

"You know damn well what happened to her! You cracked her up, showing off those insane racing stunts of yours. Then when you thought you'd killed her, you thought of me, and ran like a yellow cur. Later you must have found out she went insane, and never did come back. Big enough to take a girl, but not to stay when she needed you. That's where you showed your true colors. Daredevil racer, eh? You go so fast because you're afraid of your own shadow!

"I'd never have done anything to you. If you were what Estelle wanted, that would have satisfied me. I know now it was she who sent that telegram, not you. Even you couldn't have had the colossal ego to call yourself a man, much less the best one. But at that, I guess Estelle got the kind of a man she deserved . . ."

Brand stopped, bit his lip. Even now the hurt of ten years ago bit deep.

KILLIAN seemed curiously unmoved by his tirade. Instead a sneering smile played around his mouth. He seemed self-satisfied, as though bursting with a secret he wanted others to know, yet couldn't tell.

Brand frowned. There was something here that he couldn't understand.

"What are you going to do with me?" he asked slowly.

"Kill you, of course," said Killian. "But not right away. I've got a few things in mind . . ."

"What about those ships out there?" Brand asked bluntly, waving a hand in the direction from which he'd come.

Killian laughed.

"A little hell, for Earth," he sneered. "No harm in telling you. In fact, I think I'll enjoy telling you. And when I say a 'little' hell, I mean just that. What you saw is just a sample. There's lots more. We've spent ten years preparing, and we're just about ready. Even the Lunarians don't suspect a single thing, outside of the usual song they've been singing to deaf-and-dumb Earth congressmen for years, about taking the rap as a buffer state between Earth and Mars in case of an invasion. Invasion! This isn't going to be an invasion, it's going to be a picnic!"

Brand's face was pale. And as Killian spoke, for the first time in ten years he called upon his luck in real earnest. For the first time in ten years he didn't want to die.

"Just one chance . . ." he murmured. The almost inaudible plea was a prayer.

"What?" asked Killian sharply. "What'd you say?"

(Continued on page 64)

From that basement laboratory strange waves went to the brain of Jonathan Lane

The Case of Jonathan Lane

By JOHN YORK CABOT

It was a terrible injustice—but when Jonathan Lane found another had stolen his body, he accepted the strange trade

By JOHN YORK CABOT

WHEN I opened my eyes to stare bewilderedly at the cracked, filthy stretch of yellowed ceiling above me, and turned my aching head to one side, surveying the dingy, squalid surroundings of the little room in which I lay, some sixth sense made me instantly aware that this was not a dream.

I threw the coarse, thin blanket that had covered me quickly to one side and sat up sickly, unbelievingly, both hands gripping the rusted sides of my decrepit iron cot.

My brow was cold with sweat, and my heart hammered swiftly in some

inexplicable excitement. I felt somehow, and the word does not precisely —fit, as if I were *alien* to myself.

An elevated train clattered swiftly beneath the soot-covered single window of my room, shaking the very foundations of this ugly frame dwelling so that the cot on which I sat squeaked protestingly until it had passed.

I rose then, and moved almost dazedly to the washstand in the corner of the room. There was only one faucet, and its greenly discolored brass handle bore the faint, grease-caked legend "Cold."

It wasn't until I had turned on the faucet and splashed my burning face vigorously in the icy water that I had the courage at last to look full into the mottled square of mirror above the bowl.

I had never seen the reflection in that mirror before in my life. Never. I stared speechlessly, strickenly.

A stranger, open-mouthed and wide-eyed in horrified astonishment stared back at me from that mirror.

And now I knew—knew with nauseous certainty the hideous truth at which my sixth sense had hinted from the moment I'd opened my eyes to find myself in this utterly unfamiliar room.

I, Jonathan Lane, was not only inhabiting strange surroundings in a crawling room of some never-known tenement dwelling; *I was living in the body of a stranger!*

For an eternity I stood there weakly, clutching to the edge of the washbowl for support, while my mind teetered on the bring of unbridled insanity.

"This is a nightmare," I told myself, "a horribly realistic travesty of actual existence!"

And the choking whisper which came to mock my ears was the alien voice of this strange new body I now possessed.

"I am Jonathan Lane!" I cried hoarsely.

The very sound of this new voice derided my words. Even though my teetering sanity *knew* that just the night before I had been reading quietly in the study of my mansion estate. . . .

IT HAD been close to midnight, and for the several preceding hours I'd been lost in a fascinating volume of philosophy.

Kermit, the butler who had served my father so faithfully through the years until his death—and who now watched over me with such constant, equally religious devotion, entered the study so quietly that I was unaware of his presence until he spoke.

"I have prepared your room, sir."

I looked up, startled. Then I smiled.

"Thank you, Kermit," I told him. "You quite disapprove of my burning the midnight oil, don't you?"

Kermit's tired old face registered mild rebuke.

"I was only thinking, sir—" he began.

"Of my own good, eh, Kermit?"

"For the last week or so, sir, you have had very little sleep," he began tactfully. "Rest is essential to anyone, sir."

I grinned. Little sleep was an understatement. Night clubs, cafés, bars and bistros, I'd made them all in an unceasing binge during the past two weeks. There'd been little time for sleep on that program. This night was the first one I'd spent at home, and its drastic contrast to the previous evenings marked a sudden dulling of my taste for the alcoholic hilarity of those rounds.

I turned another page and nodded to Kermit.

"Good enough, old fellow," I told him. "I'll be up to the restful comforts of my downy bed when I finish this chapter."

The solution, or compromise seemed suitable to Kermit, and he nodded, turning to leave.

"I've prepared a hot tonic dose for you, sir," he said. "I shall leave it by your bed."

I thanked him, then, but it was considerably longer than just another chapter by the time I finally went up to my bedroom. I think I must have read through at least another four, and by the time I entered my room, it was somewhere around three o'clock.

For all the fatigue I should have felt from the constant round of dissipation of the past two weeks. I was still unable to get directly to sleep.

It must have been all of another hour that I lay there in the enormous teakwood fourposter, wide-eyed in the darkness, my mind refusing to heed the commands of a spent physical reservoir.

Nothing more than sheer exhaustion finally brought the dark curtain of sleep to me at last. . . .

AND now I stood there, in this dingy room, surrounded by squalor and filth and poverty. Stood there in the body of a man I'd never seen before in my life. Stood there less than ten hours after I had retired to the luxurious comfort of my bedroom as Jonathan Lane, wealthiest young man in the Middle West.

Some unrealized courage now forced me to steady myself, to take hold before I gave way to utter hysteria.

With effort that brought forth renewed sweat to my forehead, I forced from my mind all but the immediate task in hand—an estimate of this nightmare in which I now found myself.

For several minutes I stared at the regular, clean-lined features of my new face. It was a face of a man about my own age before this transformation. It was not an unpleasing one. Keen gray intelligent eyes, a mouth both strong and capable of laughter. Blond hair. My own hair had been dark, almost ebon-black. The body was of medium size, sturdily built, not nearly as given to softness of muscle as my other body had been. There was a suppleness, a sense of dexterity in the fingers on the hands of my new body. They were strong, slim, brown hands. The hands of a skilled manual scientist rather than a mechanic.

Then, still forcing the grim implications of this incredible transformation from my mind, I set about examing the sordid little room.

There were clothes on a chair. Cheap clothes, frayed and worn to a pitiful shine. I quickly ascertained that these were the clothes that would have to adorn this new body of mine.

In one of the pockets of the miserable suit on the chair, I found a wallet. Opening it with hands that trembled, I saw that it contained three grubby-looking dollar bills, some eighteen cents in change, and several identification cards.

The first identification card was an employee's slip from a small chemical plant I'd never heard of. It was made out to the bearer, one Carl Gelsing.

The second was an identification slip from a currency exchange. It, too, was made out to a Carl Gelsing.

There was a snapshot half hidden behind the cards, and as I brought it out into the light, it proved to be a pose in which a smiling young man stood on a river bank with his arm around a pretty young girl. The expression on her lovely face as she looked up at him was clearly indica-

tive of worshiping devotion. On the face of the young man, however, there was something behind his smile that showed no really answering devotion. Something that showed instead a fierce, burning, restless ambition before which no girl, no matter how lovely, could hope to stand.

I realized then, that the young man with his arm around the lovely girl was the one in whose very body I now stood!

I PLACED the picture gently back into the wallet, and returned the wallet to the suitcoat pocket. Then I searched relentlessly through the only remaining object of furniture in the little room, a low, scarred dresser in the corner.

My search revealed nothing but a clean, frayed shirt that had been mended several times beneath the arms, a few socks, underthings, handkerchiefs. Nothing more. Except that the laundry marks on the personal possessions were all "C. G."

I went to the window, then, and stared down at the elevated tracks running along endlessly in either direction less than fifteen feet below. I was aware, of course, that this was a tenement sector, but precisely where it was I had little idea.

Then I began to dress myself in the frayed garments of the person who had once inhabited the body I now possessed. My actions were instinctively designed to keep myself more concerned with the results of this incredible enigma than with the madly impossible fact itself.

Once dressed, I hesitated, and all my will power was suddenly inadequate against the rising surge of mad panic that claimed me.

I don't know what might have followed, what I might have done, if a knock hadn't sounded on the door at that instant. A knock followed by a light, feminine voice.

"Carl! Oh, Carl!" the voice cried cheerfully.

The tide of panic inside me seemed suddenly to ebb. That voice had given me a brief but vitally necessary link with sanity, with reality.

Somehow I managed to answer.

"Yes?"

I waited, heart hammering.

"It's Gloria, you idiot. Are you dressed yet?"

I took a deep breath.

"Yes," I said. "I'm dressed. Just a moment."

"Hurry. The restaurant will be too crowded to get service in another ten minutes," the feminine voice cried out once more.

I stepped over to the door and slid the bolt free. Then I opened it.

The lovely darkhaired girl of the wallet snapshot stood there smiling at me!

Foolishly, I stood there, groping for something to say, for any little action that would— Suddenly, and with no conscious realization of planning to do so, I bent and kissed the girl lightly on the mouth.

"Gloria," I heard myself saying, "Gloria!"

Her arms were suddenly tightly twined around me, and her mouth pressed hard against mine. The faint perfume of her hair was somehow dizzying, and her lips intoxicatingly sweet.

"Carl," she sobbed. "Oh, Carl. Are you all right? Are you really all right? You haven't done anything, have you? You haven't planned anything foolish, have you?"

I held her back from me then.

"What do you mean?" I demanded. My voice was harsh with urgency.

THE girl seemed to falter. Her red lips parted as she groped for words.

"It's just that, that last night you acted so strangely, Carl," she said. "You acted as if, as if you'd never see me again, or, or . . ." she couldn't finish. Tears came to her eyes.

"I'm here," I heard myself saying. "I'm here and nothing has happened, has it?" *Oh God,* I thought, *nothing happened! That was richest irony!*

The girl reached into her purse then, with a sudden gesture that was completely unexpected. She brought forth a key on a string.

"Here, Carl," she said. "Here is your key. You told me to hold it for you until morning. You told me to give it to you then, if, if, you were all right."

My bewilderment was genuine.

"My key?" I blinked.

"Your basement laboratory key," she said, frowning. "Don't you remember? Oh, I know you drank last night, Carl. But I didn't think you'd had so much you—"

I cut her off, not wishing to betray myself further.

"Of course," I said. "Now I recall. Thanks." I took the key.

She turned then, saying, "Come, we'll have to hurry."

"Hurry?" I said the word without thinking.

"Yes, if we want to catch coffee and rolls before work."

"Oh, yes," I managed. "Work. That's right."

The girl whirled suddenly to face me. Her lovely features perplexed.

"Carl," she demanded worriedly, "aren't you well? You seem so strange. You act as if something has—"

I couldn't let her continue.

"I'm not going to work today," I told her. "I, I'm going to do some more work in my laboratory."

The girl called Gloria looked anxious.

"Not again, Carl," she protested. "They'll fire you one of these days if you continue to miss work."

I shrugged.

"It's little enough I'd lose." I felt safe in that statement.

"But, Carl," the girl protested again, "if you didn't spend such small fortunes on the equipment for your, your hobby laboratory in the basement, you'd be able to get along a little better on what you make!"

I shook my head.

"I'm not going to work today."

And then the girl quite unwittingly supplied the information I so desperately wanted.

"If they come here to see if you're really sick," she said, "and they find you in the basement downstairs working on chemical matters they weren't aware of, it will mean your job."

I put my hands on her shoulders as gently as I could.

"Don't worry, Gloria," I said, "I'm staying here today. It will be the last time I'll spend in the laboratory."

The girl gave me a peculiar glance.

"You said that last night," she declared. Then she was gone.

I looked at the key in my hand, and again the trip-hammer beating of my heart was dizzying with the dread excitement of the unknown . . .

TWENTY minutes later I had finished my search of the basement laboratory of Carl Gelsing.

The evidence I had found there served only to heap further coals upon the burning, maddening questions for which I sought answers.

There were papers, hundreds of them, in a large file. Newspaper clippings, magazine notations, book references, rotogravure pictures, everything and anything pertaining to the life, friends, habits and secrets of—*myself!*

I, Jonathan Lane, found an unimaginably detailed personal history of myself in those files. Found a history of myself painstakingly compiled by one Carl Gelsing, the man whose body I now possessed instead of my own.

What equipment of a scientific nature there had been in the laboratory was now totally destroyed. The basement room was a litter of shattered tubes, broken slides and demolished apparatus.

In one corner of the room there was a small mound of ashes, indicating that a small pile of papers had been touched to flame there and deliberately burned.

Aside from a tattered laboratory smock, there was little else. Nevertheless I searched on for another five minutes in the desperate hope that I might unearth something else that might give some faint clarity to this maddening puzzle.

Then, as I stood there bewilderedly, hopelessly, while the insanely impossible facts whirled around and around in my brain like some mad parody of reason, I was conscious of the first, hideously fantastic glimmering truth.

It was wild, impossible, the deduction of a mind at the brink of insanity. But it bore the grim plausibility of madness itself. I determined to see it through. It was the only action remaining to me . . .

IT took me a little more than an hour to get to my suburban mansion from the metropolitan slum section in which I'd found myself. And when at last I arrived at the sprawling, wide-lawned estate that had been mine less than twenty-four hours before, a feverish hysteria was again surging through me.

I stood there a moment at the big gates leading into the long gravel roadway, gazing wordlessly at the vast stone mansion set back among the trees. Stood there, while the hammering of my heart and the choking in my throat became almost more than I could stand.

Kermit admitted me, moments later, to the huge stone mansion. His tired old face was impassive as I told him I wanted to speak with Jonathan Lane.

For an instant, when my eyes had first met those of my old servant, I had been certain that he would recognize me, would somehow realize what had happened.

But there had been no glimmer of recognition in the old butler's appraising glance. He told me merely to wait in the reception room, while he saw if Mr. Lane desired to talk to me.

"And your name, sir?" Kermit asked.

I'd hesitated a moment. Hesitated, then said, "Carl Gelsing."

"Mr. Lane expects you, sir?" he inquired.

Again I hesitated.

"I think perhaps he does," I said. "And I feel certain the name will be familiar to him."

Kermit left me in the reception room. And when he reappeared again at last, he motioned toward the hallway leading to the study.

"Mr. Lane said for you to step into his study, sir. He'll be down in a moment."

There are no words to describe my emotions as I walked down that hallway to what had been my own study but hours before. No words quite apt enough to depict the sick excitement that flooded me as I took a chair in that study and waited for the entrance of the person who now owned my body.

Minutes passed, and the cold sweat on my forehead and half-terror in my heart grew stronger with every second of them. I tried to keep my eyes from straying to the old familiar objects around the room. The books I prized, the paintings, the curios on the desk.

And then I heard the voice—*my* voice, the voice belonging to the body of Jonathan Lane!

"Hello, Gelsing. I rather expected you'd come here."

I rose, wheeling, and faced the physical manifestation of what had been myself less than twenty-four hours ago. I stared open-mouthed wordlessly, as my body smiled tauntingly at me from the doorway.

"You are Gelsing," I managed at last. "You are Carl Gelsing. What horrible madness did you—"

GELSING, the man who had stolen my body and given me his, smiled again and waved his hand at my chair.

"Sit down," he said. "Sit down, and don't get excited. I'd hate to have you thrown out of here before we got a chance to talk this thing over."

Weakly, I slumped back into my chair, my eyes following him as he moved around behind the desk and sat down.

The silence hung heavily for a moment, while Gelsing, the man who now lived in my body, smiled appraisingly at me.

"You must have a very strong mind," he said at last, fingering a paper-knife on the desk. "I had taken into consideration the possibility of your going mad on discovering what had happened to you." The smile became a smirk.

"You must be insane!" I gasped.

He shook his head.

"Quite the contrary," he declared. He waved his hand to indicate the room.

"I am now one of the wealthiest young men in the nation," he said. "And with the wealth which you never seemed to be able to utilize constructively, I will soon be one of the most powerful men in the world. No," he smirked, "I don't quite think I am insane."

"Then this was deliberately planned, devilishly exe—" I began.

He broke in again.

"It was quite cunningly planned," he said. "Undoubtedly you found the files on yourself in my laboratory. I began collecting them almost two years ago, when I realized that a discovery I had stumbled on would enable me to accomplish this some day.

"I chose your body, your wealth and station as the one I could best utilize," he went on. "From that day forward I obtained every last scrap of data about you, your history, your personal habits, friends, acquaintances, everything I could learn.

"And while I did so," he declared, "I continued to live in my miserable, poverty stricken surroundings, continued to slave night after night in that wretched basement laboratory, perfecting, testing, toiling over the power of mind-transference which I had first discovered quite unwittingly. From the very moment that I made my selection, chose your body as the one which I would take over, the transformation you woke to find completed this morning was inevitable.

"Yes, indeed, you were an ideal choice for me. You were young, had enormous wealth, and exceedingly few domestic ties." He paused. "And now my initial plans are realized. The transference is made. I now have your body, and with it your life and fortune. You, my friend, have received in return my body, and the squalid life that goes with it."

"But you can't do this!" I protested. "You're mad. You don't know what you are doing!"

The smile left his face.

"Can't I?" he asked. "Or, shouldn't we say haven't I?"

"You have," I admitted thickly, desperately. "God knows you have, in some incredible fashion accomplished

this impossible madness. But it can't go on. You must return both of us to where we belong!"

HE shrugged. "Even if I were fool enough to do so," he declared, "it would no longer be possible. You saw the smashed equipment in the basement laboratory. You viewed the ashes that remained of the formulae notations I worked from. I deliberately destroyed every last bridge back. There is no possibility of change any longer!"

My mouth was open in horrified astonishment. Sickly, I tried to speak. Words refused to come from my lips. He grinned gloatingly at me.

"There is little need to be so alarmed," he declared. "There is no reason to feel that your life is at an end. Quite the contrary. A new, a very different life is just beginning for you." He laughed unpleasantly.

Still I fought for words.

He continued. "You'll find this new life very much in contrast to the one I've taken from you," he said. "Where once you had measureless wealth, you will now have grubbing poverty. Where once you knew nothing but luxury, now you will have little but toil and misery.

"But," he paused before going on, "there will be compensations." Scorn underlined the last word. "You will know the dubious thrill of struggle for existence. You will find that the lot of the little man, though not replete with comfort, has the compensation of dignity in poverty, honor in squalor. You will learn the beaten weariness of the man who fights against his fate. You will have despair, sorrow, bitter disappointment. And through it all your life will be one hell of stark struggle to stay alive."

I watched him reach into a humidor at his elbow and bring forth one of the unusually expensive cigars I had smoked. His eyes regarding me behind the flame of the match for a moment of mocking derision, he lighted the cigar and spoke again.

"But you will have love," he said, and the scornful mockery in his voice was even stronger now.

"That girl," I found myself saying, scarcely aware that speech had returned, "that girl who knocked at your door this morning. You—"

He cut me off.

"She is very much in love with me," he said smirkingly, "or with what once was me. She is part of the sublime and simple life I leave to you. She need never know. I want no more of her. She's part of the nightmare of squalor and poverty that I've forever left behind me."

I thought of her sweet warm lips, the perfume from her lovely ebon hair, the adoration shining from her eyes in that worn snapshot I'd found in the wallet.

"You swine!" I said hoarsely. "You mad, rotten swine!"

His face went suddenly white in instant rage.

"Hold your tongue, *Gelsing!*" he snapped. "Hold your tongue or I'll have you tossed out of here instantly!"

I WAS thinking, still, of the girl, Gloria. I was thinking of her words when, unknowing, she had looked at me that morning, saying, "*You acted as if, as if you'd never see me again.*" I was thinking of the tears in her lovely eyes as she said those words.

Suddenly I rose, taking a step toward the desk where my usurper sat. He rose, too, wrathfully.

"Stay where you are!" he blazed. "Don't move a step closer!"

I shook my head.

"I've no intention of harming you," I told him. "As a matter of fact, I'm just leaving. I'm going back to the life

you gave me. I'm returning to the love of the beautiful girl you gave me. I'm going to take my chances at carving a new destiny out of the clay you've given me. I think it will be more than worth the battle. I think perhaps I will enjoy it."

The rage was still stamped whitely on his face.

"That's fine," he grated. "Now get the hell out of here!"

Quite suddenly, then, the white wrath on his face went sickly yellow. He clutched at his heart, his breathing suddenly gasping, loud. He reeled and swayed on his feet.

"You'd better sit down," I told him quietly. "You'd better learn not to excite yourself during the next three months. You see, there's something about me that you didn't find out, something I myself learned only three weeks ago."

Sweat was on his brow as he slumped to the chair behind the desk. A wild fear was growing in his eyes.

"What do you mean?" he gasped. "For God's sake, what do you mean?"

I smiled then.

"You see, three weeks ago my physician advised me that I had but four months more, at the utmost, to live. He told me that there was absolutely nothing in medical science which my money could buy to save me."

I turned then, moving to the door of the study. There I paused an instant.

"I came here hoping to save you from your folly. But, as you pointed out, that is no longer possible. Goodbye, Jonathan Lane. May your last three months be pleasant ones."

WORLD'S LARGEST INSECT

MEMBERS of a Harvard expedition near Elmo, Kansas, a few years ago, discovered the perfectly preserved remains of a wing from a huge prehistoric dragonfly that is without a doubt the largest insect that ever lived. By comparing the size of the wing with wings found on insects of the same type who were discovered in their entirety, the scientists determined that the wing belonged to a dragonfly about two and one-half feet long. This species must really have ruled the air about 150,000,000 years ago when there were no birds in existence and only fish, reptiles, and invertebrates existed.

The dragonfly was a member of the Protodonoto group that lived during the Permian age. Their thin bodies and strong wings enabled them to fly very fast and this, combined with their great strength, allowed them to travel for a great distance in sustained flight.

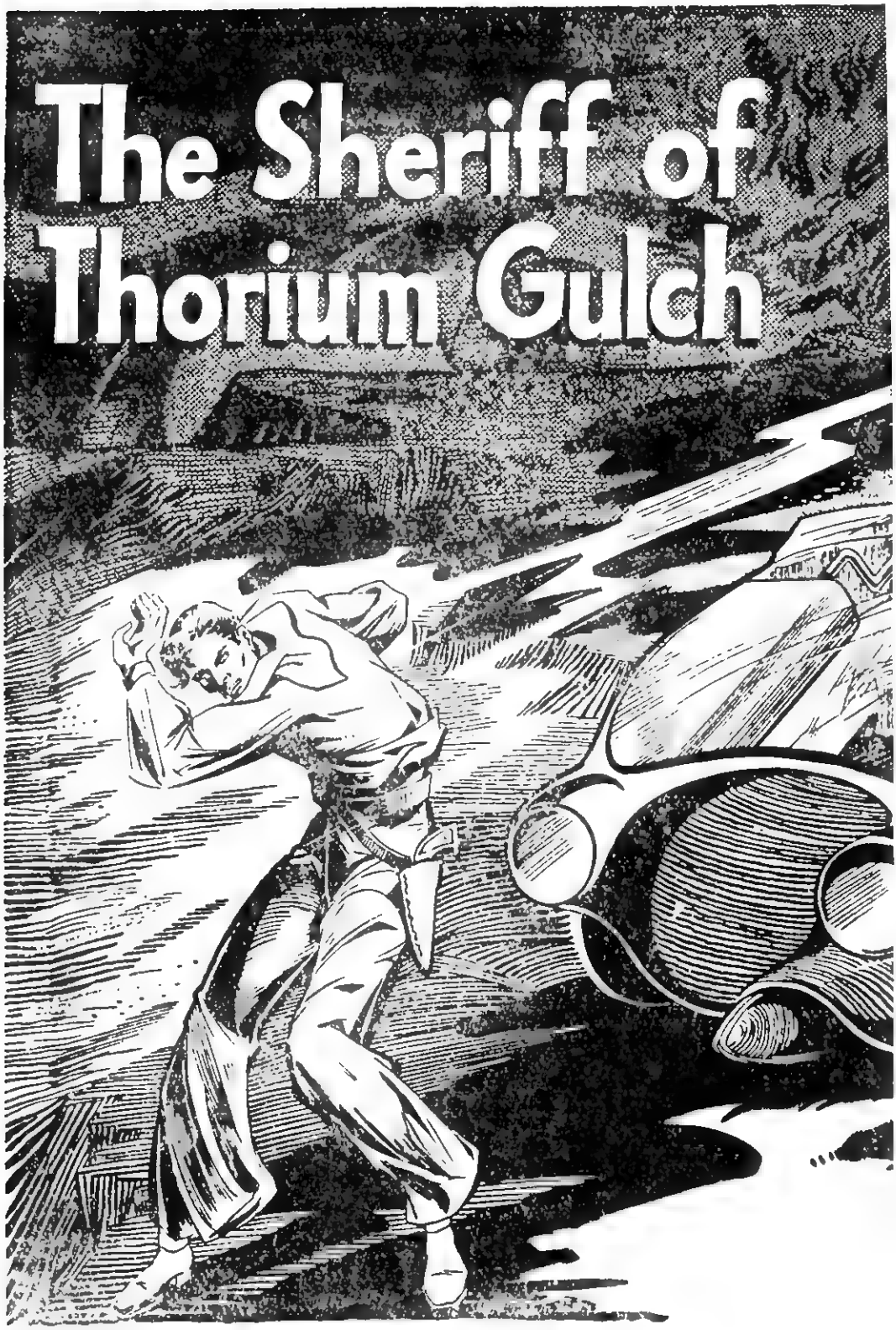
The expedition also uncovered many thousands of other prehistoric insects in excellent condition since the area was once in extensive swamp and the insects were kept in good condition by the limestone formations in the mud which had ensnared them. The scientists could study every detail in the formation and development of these insects simply by studying their reproduction in the stones uncovered.

HOME SWEET HOME

IN THE near (we sincerely hope) future, after we've won this war we're fighting and sugar ration cards are a thing past, we may find ourselves building sugar-coated houses. Here are a few facts about this amazing project.

Sugar solutions materially reduce the shrinkage of wood, as shown by recent experimentation. This reduction can be ascertained from the partial specific volume of sugar in the concentration attained within the swollen structure on the basis that this concentration becomes equal to the corresponding bulk concentration. Invert sugar reduces the dimension changes of wood to a greater extent than sucrose and should serve as a good anti-shrink agent under conditions that will not be too conducive to the leaching of the sugar from the wood.

Invert sugar in concentrations not exceeding about 25 grams per 100 cc. of solution serves as a good inexpensive anti-shrink agent for wood which is to be subjected to the higher relative humidity conditions. The difficulty involved in its practical use seems to be keeping the sugar in the wood and in the tacky feeling that the wood assumes at high relative humidities. This can be largely avoided, however, by minimizing the amount of sugar deposited in the coarse capillary structure.


The Sheriff of Thorium Gulch

Joe Jepson felt the wave of the heat blast as the gun flamed at him.

By

MILES J. BREUER

There was hell to pay on the Moon when Jepson's old man died and left "unsettled affairs" in Thorium Gulch

"WHY have you dodged me all evening?" The way the gazes of the two young people devoured each other left no doubt as to their mutual regard. It was June 4th, 2142, the night of the splendid reception given to the graduates of the Engineering Department of the Harvard University by the A.A.E.

In spite of his *magna cum laude*, his fine fraternity associations, in spite of his showcase full of athletic

trophies, Joseph Jepson went about the entire evening with a face as gloomy as an eclipse. Alice Anne Dawson had moved about among the guests, gaily laughing and jesting, but always at aphelion from him, so to speak. Finally he had cornered her alone, on the railing of the outdoor conservatory.

She hung her head. She had the colored beauty of a rare Chinese vase, and a lithe and supple body like a panther, on which an entire night's dancing had not left the least impression of fatigue.

"I—I just didn't think you'd want to talk to me," Alice breathed very tenderly.

"Hell! Aren't we engaged? You haven't done anything to me." Joseph hid his embarrassment beneath an attempt at roughness.

"Joe!" There was immense relief in her half-whispered voice. "But my —but your—but Joe!"

"Yes!" Joseph's snarl contrasted with the soft love in his eyes. "Just because your father, by a clever quirk on Wall Street, cleaned my father out of the finest thorium mine on the Moon, is no reason for my getting sore at you. You didn't do it. And there's no reason for me to be ashamed; my father is a mining engineer, not a—not a financier!"

She snuggled into his arms, where he held her with affectionate solicitude, yet with an air of not knowing what to do with her.

"Then everything is all right, Joe?" There was a soft, melting light in her eyes that caught Joseph's breath.

Joseph was silent a moment.

"Well. It is, and it isn't."

Alice shrank out of his arms into a corner of the porch seat. "Aren't you going to marry me, then?"

"Yes," Joseph said, now calmly. "But I haven't got a dime. If I didn't love you, I might be willing to drag you into a life of uncertainty and asphyxiation."

"Joe! What are you going to do?"

"I'm staying right here on Earth and getting me an engineering job, either teaching or industrial, and getting on my feet first. You're going back to the Moon and taking your place in the aristocratic social circle where you belong, and—and if you get tired of waiting for me—"

"But, Joe, you'll go crazy here on Earth." She put her hand over his mouth. "Everybody here lives by an equation calculated a hundred years in advance. You love the romantic frontier life on the Moon. You only came to this crowded, stifled Earth to get your technical college work, just as I came here to prepare myself to be a leader in the humanitarian side of life on the Moon. No. You come back to the Moon with me. I've got enough of my own possessions so that we can get a start together."

"I couldn't do that." Joseph shook his head. "I've got to start on my own feet, or I'll hate myself."

"Why, Joe! Your whole life was built up for living on the Moon! Your pillar riding, and how you shoot four guns at a time—" she looked admiringly at his magnificent physique—"why! You could make the Moon eat out of your hand."

Alice was clinging to him again, as though he were her life's only hope.

"Anyway, I'll always and always wait for you," she sobbed. "You know I've never gone with anyone else. You might come—you might be sent up to the Moon on business."

"That's possible," Joseph said through gritted teeth. "The Universe is a small place."

"Do you remember how we got lost in a crater when I was just six, and

you killed the yellow armored snake?" Alice laughed through her tears, and it was like Rainbow Falls in the Yosemite. The silvery disc in the sky, the key to their lives and their emotions, smiled placidly down upon them.

SUCH good sports were these two young products of humanity's newest frontier, the Moon, that during the week of social and official activities centered around graduation in a hundred colleges around Boston, neither of them mentioned the subject again. After that, Alice and her mountain of luggage went aboard a Terralunar liner; and Joseph Jepson set about investigating the numerous opportunities for employment open to one with his qualifications.

Into that gray, drab succession of days and nights, to which during his four years on Earth he had never got accustomed, suddenly came the helio message from Copernicus, that the shock of losing his mine had prostrated Joseph's father, who now lay partly paralyzed at Thorium Gulch. There was nothing to do for Joseph, but to take the first liner for the Moon. So, there he was, on the Catapult platform, sitting on his meager baggage, looking up at that bright disc, preparing to start "up" there.

History has always progressed by means of the unexpected; never has it been an extrapolation upon the curve of the past and present. For instance, on that sad night, as Joseph sat on his suitcase and waited for the Glider, the Moon looked entirely different up there in the sky, than his ancestors of two hundred years ago would have ever dreamed. There was a haze around it; its once sharp edge was fuzzy and there wasn't a star within five degrees of it. The shine was much brighter and less yellow in tone; and the once clear, sharp markings of seas and craters were vague smudges. For, the Moon now had an atmosphere.

Joseph was popular; his recent financial catastrophe but little known. He could have had a hilarious crowd at the Platform to see him off. But he slipped away in secret. He was not in the mood for party frolics.

For a vast irony pressed down on him as he sat there, idly looking up and tracing out the Serenity and Tranquility Seas. It was Joseph's own grandfather who had made that Lunar atmosphere possible, whereas here he himself sat, a penniless waif, with no man's hand lifted to his assistance. Every historical movement has the character of an individual great man behind it. When the first geodesic gliders were made, and men in spacesuits brought back specimens of minerals, the rarity of which on Earth was holding back human progress and which were to be had on the Moon for the picking up, Grandfather Jepson had had the vision of this vast Moon Empire.

AT FIRST people had thought him cracked, and had opposed and persecuted him. His lifetime had gone into it. Before finally the metallic and silicic oxides had been broken up by the energy derived from the sun's rays, releasing free oxygen, hydrogen, and helium, and creating an atmosphere breathable for man, at least during the 336-hour daylight period, world politics and finance had been involved, two world-wars had been fought, the name of the Moon Development Company was a byword in every home on the Earth's globe, and two hundred billion dollars a year for fifty years had been spent. Old Jepson had died, leaving Joseph's father nothing but a pauperized, undeveloped

thorium mine near Copernicus. After spending a lifetime wrestling a living from it and bringing up Joseph to operate it scientifically, Joseph's father had, due to a twist of the financial wheel, been left with nothing.

Suddenly, there lay the ship in front of Joseph, in the cradle of its catapult. Joe picked up his luggage, refusing the services of a porter because of the scantiness of the change in his pocket, and walked up the ramp into the huge cigar-shaped craft. There were seats in rows, just as in a bus, just barely comfortable, for the trip was short. The warning gong rang; ports were sealed. The gigantic machinery beneath the Catapult Platform rumbled hollowly. The passengers were shut away from the world. There were no windows, for there was nothing to see, since the journey was made outside of Space. On the outside of the ship, there was the usual commotion in the usual Platform crowd; when, with a huge roar of the Catapult, the ship suddenly vanished.

Which is another reminder that history is full of the unexpected. Joseph himself was no small reader of the prophetic fiction of the past, and some of the 200-year-old stories of rocket-propelled vessels seemed to him on the same plane with Cyrano de Bergerac's Moon Balloon propelled by swans. For it was Einstein and his group who discovered how to reach other bodies in Space. Since each mass of matter is a pucker in the three-dimensional surface of the four-dimensional sphere which is all of the known and imaginable Universe, the discovery of a catapult to push matter out of space, made it possible to follow the lines between these puckers, the lines whose tensor equations were zero, or geodesics. Reaching the destination was a matter of coasting and skilful landing, just as in case of an atmospheric glider. There was no power installation on the vessel itself. So, after a few hours of reading and solitaire, Joseph found himself getting off the vessel at the huge Platform at Copernicus, one of the Moon's two largest cities.

FOR a moment, he was overcome by emotion at being back again after an absence of four years. The thin, biting air was like an elixir; the inky-black shadows, the light feeling of his body, the magic of the earth-shine in the sky, surged all his happy childhood back for a sudden moment. In the bustle and confusion such as is incident upon the landing of a large vessel, a messenger-boy wound his way in and out, shouting:

"Calling Mr. Jepson. Calling Mr. Joseph Jepson!"

When Joseph announced himself, the blue-coated boy with cap tilted sidewise, handed him the yellow envelope that has been familiar for centuries. Since there is no way of communicating with a vessel that is out of Space, this was the first possible news that could reach him since his embarkation. He reached for it languidly. He could not imagine anything happening to him worse than had already happened. Little did he know how wrong he was—on two counts. The heliogram read:

Your father, Wallace Jepson, died hour 188. Come at once to Thorium Gulch to settle affairs.

J. Hermsen,
County Judge, Thorite County.

It seemed to Joseph that he suddenly went limp. He remained that way for many days, as days are counted on Earth. Like a wound-up clock, he went through the necessary motions,

eyes staring straight ahead, speaking only in essential monosyllables, until, as he thought, he shook the dust of Thorium Gulch from his shoes for good and all. He found himself back in the busy streets of Copernicus, at loose ends.

He hadn't enough money to pay his fare back to Earth. He did not know exactly to what to turn for a living. In fact, he cared little about living anyway. What in particular did he have to live for?

He decided to take a few hours' rest in a low-priced hotel. In fact, a few hours of oblivion on a few bottles of red-neck, would not be so bad. Then he could decide what to do next.

As he brought his luggage into the lobby, it fell from his hand as the result of shouts out in the street. He rushed out, and then flattened against the wall, following the example of the other bystanders. Two men in the street were catfooting around with cathode-guns in their hands. One was leather-faced and sullen-eyed. The other was fresh-faced, young, alert.

"That pore young snip's a durned fool," said the man squeezing into a doorway with Joseph. "Dead-Eye Ike's got the quickest timin' in the South of the Moon. I bet he's killed a hunnerd men."

"What's it about?" asked Joseph.

"Don't matter what it's about, does it?" the stranger said. "If Dead-Eye Ike wants a guy dead, it'll be about sumpin'."

The men were maneuvering about on their feet like fencers. They struggled chiefly with their eyes. Not a word was said. The younger man was very pale. Occasionally one would twitch a hand with levelled cathode-gun. A blue halo would surround the other for an instant, but nothing more happened.

THEN it was all over in an instant. The young man twitched ever so little with his trigger finger; the blue halo appeared around Dead-Eye Ike. But this time, just a split-second later, the young fellow's finger really squeezed, and Dead-Eye Ike toppled heavily to the pavement with blood welling from a hole that the stream of electrons from the cathode gun had bored clear through his chest.

The man next to Joseph let out an involuntary exclamation of exultation.

"Got his at last!"

Confidentially he whispered to Joseph: "I happen to know that Dead-Eye Ike just had a couple o' thumbs o' red-neck."

Joseph knew the rest. Very fine coordination between hand and eye were necessary to throw up the shield of positive charge just as one's opponent let go his instantaneous cathode stream. But neither cathode-stream nor shield could last over 1/100th of a second. The young man had pretended to shoot, but had let his real shot go just after Dead-Eye Ike had thrown out his shield, catching him on the subsidence of the shield.

"No red-neck for me. *Ever!*" Joseph said to himself.

He tossed through a restless night, but leaped out of bed in the morning, his mind made up calmly and definitely to something that had been hiding in the back of it for "days." Alice Dawson lived on a plantation only about fifty miles up the Appenine highway. For, after moisture had been added to the Moon's surface, many animals and plants began to grow there; because of the unusual intensity of the ultraviolet portion, the plants supplied the Earth with most of its dietary vitamin. Alice's father had many residences, but the family's real home was this plantation near Thorium Gulch. Jo-

seph decided that he would visit her once more, and then decide what to do. He felt peace within himself when he determined upon this.

He rented a caterpillarcycle, the native vehicle of the Moon, upon which he was an expert rider. These machines have ten 24-inch wheels, each with independent drive and knee-support, and can climb up steep hills, over rocks, up and down rills, balance on rays and ridges, progress axle deep in dust and mud. Their multiplicity of controls requires a high degree of skill to manipulate. In something less than an hour, Joseph was twisting his whizzing, worm-like mount up the familiar old canyon toward the Dawson plantation.

THE first thing that roused his suspicion was a cloud of black smoke hanging over the top of the last precipitous ridge. Then, as he rounded the last bend, he saw the plantation buildings in flames.

He roared into the gateway like an arrow and leaped off his cycle. In his haste he noted the odd circumstance that an automobile, unfamiliar to him, was standing just inside the gate, headed outwards. As he approached, a tremendous explosion threw the main building into the air, black fragments flew, and a belch of black smoke went straight up. Joseph shook his head. There was never enough explosive material in an ordinary plantation to produce such an upheaval. Something was wrong. He ran toward the crackling pile, full of apprehensions about the inhabitants. Then it was, he saw old Dawson's body, and the chest was mangled by cathode shots.

As he approached it, from around the other side of the house came a group of struggling, running people. There was a woman's scream, short, quickly stifled. He turned and stumbled toward them through the black, acrid smoke, but before he got very far, they were all in the car.

There were two men, and there was Alice. One of the men sat at the wheel and had the motor running. Alice sat in the front seat, the other man in the rear. With the speed for which he was famous, Joseph had two cathode guns in his hands and the two disintegrator-ray tubes in his armpits, aimed, his elbows on the buttons. But, he was frustrated. The two brigands put their heads so close to Alice's that he did not dare to fire for the moment. They had him covered with a multiplicity of weapons, including a rocket-rifle, against whose lead bullet a positive shield is no protection. So, he put a hole in a tire with a cathode beam.

In a moment, Alice had her arms around the neck of the man at the wheel, held him a moment, and kissed him. Then she turned to Joseph with a merry smile, and waved to him with a tripping motion of her hand at the wrist.

Joseph turned weak throughout. The crashing universe spun in dizzy circles around him. For just a short moment he was completely unnerved and totally off-guard. He did not see the villain in the back seat carefully prop up his cathode gun to steady its aim, in time to put on his proton shield. There was a blue streak from the car. A flaming world crashed around Joseph's head, and then went out. He dropped flat on the ground, with the blood running profusely from the left side of his head. The Moon night, during which the air froze into snow and covered the rocks with a blanket of white, was only four hours away.

"THANKEE, Jedge. I'll take just half a thumb with ye."

Judge Hermsen poured out two centimeters of the thin, pungent liquor into the County Clerk's glass. Their silver hairs, and their many years' record of official position, entitled them to go about unarmed and safe in that outlaw community.

"Ye know, Jedge," the aged Clerk said: " 'Cordin' to law a person't ain't ben seen by nobody for seven years, is presumed to be dead!"

They sat at a tiny round table in a far corner of the bar-room of the Slapping Holster Saloon in Thorium Gulch.

"So what?" asked the Judge, dodging his ear away from the whirling skirt-brim of one of the scantily clad girl entertainers who danced among the tables.

"In three weeks," continued the croaky voice of the County Clerk, "it is August 1st, 2149. 'Member old Dawson who was burned to death when his plantation went up in smoke? Well, his darter Alice is the only heir, and hasn't showed up for seven years. Then, there was the Jepson mine that came to the Dawson heir 'count o' some Wall-Street flamdoodlin'. The County's ben administerin' the estate ever sence—"

"But now it becomes the property of the County!" Judge Hermsen slapped the jittery table, spilling the red-neck, which he didn't want anyway. "Craters! That's a heap o' money. An' the County needs a good jail awful bad."

"W'y!" the aged County Clerk was inspired. "Them two estates will build the best jail on the Moon except Copernicus and Archimedes!"

Their conversation suddenly hushed. The whole busy room, with a dozen men at the bar and two dozen more at tables, suddenly went quiet. Only the radio went blaring on with the latest Broadway hit. Judge Hermsen could remember faintly in the back of his mind that someone had said sarcastically:

"Burned to death, nothin'! Murdered!" Then everything had gone quiet except for the jangling of the radio.

After what seemed a century, two men at a table near the bar leaped up with levelled cathode-guns. A third, younger companion remained seated.

"Wishbone Gus, ye crater varmint!" one of the men snarled. "Take that back!"

"Take what back?" the bewildered moon-turtle puncher said, staring at the two. "I ain't said nothin' against nobody."

"Ye're thinkin' too much, then. Stand up!"

Wishbone Gus lumbered to a standing position, and his hand unconsciously twitched in the direction of his cathode-gun. But he was too slow.

THERE was a crack, a faint blue streak from the gun of one of the desperadoes, and Wishbone Gus pitched backwards, clawing the air, with blood welling from the front and back openings of a hole straight through his chest. The odor of ozone and burnt flesh reeked through the room. The radio prattled and whanged unconcernedly on.

"Anybody else want to talk over the murder question?" said the bad man sarcastically, sheathing his gun.

Only silence prevailed. Everyone remained motionless, a glass upraised, a card held out. The three desperadoes lifted their glasses of red-neck to their lips and drained them at one gulp.

It took minutes before people began to unlimber. People at the bar slowly and timidly finished their drinks. Card games gradually swung back into action. One of the scantily clad, char-

acterless dancing women broke into a harsh laugh.

"Damn right nobody won't!" she cried hoarsely. "Them three twimps are runnin' this dump. Got 'em all scared. Shoot too fast and ain't 'fraid o' nothin'!"

The rustle and bustle of resumed activity was spreading over the room again. A little argument arose at one table.

"Well, what about it, Lefty?" a sneering voice asked.

Lefty Wagner rose and walked up to the bar. At his first movement the three ruffians had their cathode guns in their hands and had him covered. But he kept his hands ostentatiously away from his weapons. He unpinned a star from the breast of his asbestos jumper and laid it on the bar.

"Last week when the bank was robbed," he said, more to the ruffians than to the gathered company, "you-all calculated to talk me into bein' sheriff. But I've figgered out that I'm the wrong guy fer sheriff. As far as I can figger, Wishbone Gus was killed in fair fight an' it was his own fault. This ain't no job for a sheriff, and I don't want to be sheriff nohow."

"Wishbone Gus was killed in fair fight!" sneered the woman with the painted face; "an' so was Meteor Bill and Skyline Jeff an' a lot o' others durin' the past few weeks. It's allus the fella's own fault, but they're all dead anyhow, because somebody didn't like 'em. And this whole bunch of sissies is scared stiff."

She swallowed another glass of redneck and laughed another raucous laugh.

Her laugh broke down in the middle. Once more the room was paralyzed into deathly silence. A tall, lean stranger had suddenly appeared in the doorway, and stood looking in, eyeing the scene with superb disdain.

HE LOOKED to be about thirty years old, and his bronzed face was keen and fearless. His sharp glances swept the room, and every man in it felt their stabbing power. Two cathode guns hung in holsters at his hips; in each armpit was a D-ray tube; over his shoulder was a rocket-rifle; and in his belt were two saw-toothed Poswick knives.

"So, that's the line, is it?" he said in a voice like a bandsaw, cutting right through the blaring of the radio. "Three *tough* bozos leadin' the burgh by the nose, an' no sheriff!"

He laughed and continued searching the room with his glances, leaning idly against the door-jamb. When his eye lighted on the three bad men at the table, it paused suddenly, and there came a hard glint into it. For the merest instant he studied them, and there was the barest lighting up of his tan features. His careless air suddenly disappeared, and he walked briskly up to the bar. There he picked up the sheriff's star.

"Guess I'll run fer sheriff here," he announced, holding up the badge. "Cleanin' up nasty jints is my sideline. If anybody objects to my bein' sheriff of Thorium Gulch, lemme hear from 'im right now in any way 'e picks out!"

He waited for a few moments, during which there was not the slightest movement in the room, and no sound but that of the radio. Then he pinned on the star.

"Unanimously elected!" he exclaimed, and grinned a good-natured grin that won the hearts of all of them but the crooks.

Everyone in the room held his breath and stole furtive glances at the three bad men. The trio were winking at each other and laughing merrily. The

stranger, now established as sheriff, was leaning backwards idly against the bar, with both elbows on it, watching the three men with what appeared to be a careless glance.

The youngest of the three ruffians nudged the other two, and swaggered up to the bar.

"Drinks on me fer the crowd!" he roared. "Drink the health of the new sheriff! His health, I say!"

He put a little tube of thorium down on the bar in payment, and then leaned back and roared with laughter, while his two companions supported him with loud guffaws.

The bartender set out two score of little glasses of red-neck, and the crowd solemnly filed up and tossed down the thin, acrid liquor, and again filed back to their seats. The ceremony took up some time, but at the end of it, the stranger had not as yet touched his glass.

"All right, sheriff! Here's yores!" the bad man said insolently, holding the glass toward the stranger.

"Thanks for your hospitality," the stranger said courteously, suddenly lapsing into perfect English. "I'm sorry, but I never drink. It spoils my aim."

FOR a moment the ruffian stood astonished. The fact that anyone had dared to refuse his drink was sufficient to make him stare in blank amazement. Then his face turned purple with anger.

"Yuh high-toned son of a gun!" he roared. "You'll sure as hell drink this, or I'll know why!"

"You may possibly ascertain *why*," the stranger replied casually. "I rather regret that I must refuse your kind hospitality, but I have already told you that in order to keep my hand quick and steady, I never drink."

The ruffian's reply was a hoarse, wordless gurgle. Then he swung the glass of liquor and dashed it straight at the stranger's face.

An unconscious, suppressed "hah!" of indrawn breaths came from the crowd. Some of them glanced at the dead man lying there on the floor, for the time forgotten.

The stranger's expression hardly changed. A sidewise twitch of his head, so slight and so quick that it was all but invisible, avoided the glass, which sailed across the room and landed in a corner. In a neat, business-like way, his left arm shot out and caught the ruffian on the point of the chin. The latter staggered backward for several steps, toppled dizzily for a moment, and finally tumbled heavily in a heap on the ground. The next thing anyone knew, the stranger had two cathode guns levelled at the man's companions. No one saw him reach for them; they seemed to appear in his hands out of the thin air. The other two were just caught in the act of reaching for their holsters, and looked rather sheepish before the rest of the crowd, as they held the pose.

"An' hands off yore shields!" the stranger said quietly. "Just twitch yer thumb an' watch me blow yer arm off."

The man who had been knocked down, moaned and stirred, at which the faces of his two villainous companions grew black with rage. Their expression gradually changed into a sneer. One of them spoke:

"The name o' this place'll be changed to Suicide Gulch in memory o' you. There's three of us against yuh, and yuh kin ast anybody what we kin do."

"Inasmuch as I possess no references," the stranger said in correct but sarcastic English, "I am compelled to demonstrate."

There was a quick, twisting movement of each of his guns. Four sharp cracks rent the air, and there were two blue spurts from each gun. A glass clinked on a distant table. There was a crash at the ceiling above it. From each of the ruffians came a yowl of pain, and a sizzling mass dropped on the floor at the feet of each.

IT REQUIRED some minutes for the crowd to figure out exactly what had happened, during which the stranger leaned casually against the bar, with his cathode guns patiently at the level, smiling at the swearing bad men, glancing occasionally at the groaning one near his feet, and the dead one in the other corner. When they reconstructed it, here is what he had done. With one hand he had shot and hit a table just beneath a liquor-glass; the concussion had shot the glass upwards and with the second shot had caught it in the air and smashed it to molten bits. This had happened almost instantaneously, but the bad men had considered it their opportunity to get the drop on the stranger. However, that was just what he was expecting, and as their guns came out of their holsters, he had shot the instruments out of their hands. It was a miracle of speed and accuracy.

It left the ruffians quite as amazed as the rest of the crowd, and everyone stared at the stranger. Never in Thorium Gulch, never anywhere on the Moon had such marvelous marksmanship or such lightning speed been seen.

"Thorium Gulch has really got a sheriff!" was a thought that went through many a man's head.

In the meanwhile, the youngest of the three ruffians, who had been knocked down, was beginning to sit up and look dazedly about the room. He staggered to his feet and fumbled awkwardly for his gun. Some secret, invisible warning from his companions stopped him.

"Now!" said the stranger. "All three of you beat it! Get the hell out of here!"

The two of them went sullenly, and the third one blinking dazedly, to the door. There the stranger stopped them, still holding four guns leveled at them.

"Wait!" he commanded. "Someone please take my hat off."

Lefty Wagner, the ex-sheriff, obligingly tugged the stranger's asbestos topee off his head.

Everyone gasped. Even the three ruffians at the door started in alarm.

"Cathode Joe!" several people about the room whispered.

There was a streak of scarred, bald scalp across the stranger's head, backwards from the left side of the forehead. That was a mark known all over the Moon, and its bearer was known, if not personally, at least by repute, to all of its inhabitants. Cathode Joe was a free-lance prospector, a restless wanderer, and a quick shooter. Though no one had ever yet beat him to a draw, yet he was quiet, and let people alone. Nevertheless, there was a queer streak in him, as a result of which he had a good many killings to his credit. He was out after bullies and outlaws, and often went out of his way to pick a fight with them. So, it was no wonder that our three beauties in the Slapping Holster were a little disconcerted for the moment. They had heard plenty of his aim, his speed, his coordination, and his love for their kind. They consulted together for a moment, and then went out. Cathode Joe shouted after them:

"See ye again! Been lookin' for ye for a long time!"

IN a moment the hum of their departing cycles was heard from the street. Two men started dragging the dead man out.

"Are those twimps a brace of brothers named Halsey?" Cathode Joe asked of Lefty Wagner.

"They're brothers, but their name is Hall."

"Wurry, wurry ingenious alias," sneered Cathode Joe. "But who's the third man, the young one, the reckless cub?"

"They're all three brothers."

"Oh, yes," recollected Cathode Joe. "Charley was just a kid when I saw them last; but he looks low-down enough to prove the relationship."

Suddenly Joe's hand was at his shield. In a moment there was a crack outside the window and a blue glow about Joe, showing that his protective field had been struck by a stream of negative electrons. Instantly afterwards, Joe's gun cracked toward the window. A rock outdoors flew to pieces, but no one was seen. Several men rushed to the door, but no one was seen.

"Never mind," said Cathode Joe. "They're far away by now."

"Stranger, ye seem to be interested in these yere prominent citizens of ourn. Dyuh mind if we ast yer why and how come?" Lefty Wagner felt fairly well acquainted with the stranger by this time.

"Guess there's no secret about it," Cathode Joe said. "I'm a rollin' stone. I've looked into every bar from here to Archimedes an' I've shot lots of men an' am still ridin'. But I ain't done nothin' against the law, an' mostly I've tended to my own business, which is lookin' for a couple of yaller lizards, the same as which ruined my life seven years ago. Bein' as this is my ol' home, I look into Thorium Gulch off an' on.

"I've found mines and punched turtles, an' kept sober, an' learned to shoot, always lookin' forrard to the time when I would find my birds. Fer that reason, today is the happiest day of my life. You can't go wrong on Buck's crooked jaw and Bill's nigger lip."

One of the bare-armed, short-skirted women patted Joe flatteringly on the arm.

"Only real man in the burgh," she said to him.

JOE shook his head, slightly but unmistakably. She understood him as well as he understood her; and she retired to her corner with her own kind of dignity. There were no hard feelings on either side.

"I'm off o' wimmin, too," Joe said confidentially to Lefty. "Kyaint trust 'em." Lefty affected not to notice.

"Cain't see why ye didn't burn 'em down in their tracks," Lefty shook his head. "Yuh c'd 'a had the whole job over with by this time."

"Funny thing," mused Cathode Joe. "Been wonderin' about it myself. I just guess I wanted to see 'em squirm. Ya notice I got 'em sniffin', don't ya?"

"How d'ya know they're not a hundred miles away by this time? How d'ya know you'll ever see 'em again?"

"Because I know 'em too well. They still think they can git me, see? An', suppose they do run off? I've hunted 'em so long, I'm used to it. Your town 'ud be rid of a couple of pestiferous snakes, anyhow."

"Well," Lefty said, extending his hand. "We're glad to have you as sheriff, anyhow. But, be careful. They're crookeder an' yellower than a crater-snake!"

Cathode Joe laughed.

"I've spent seven years studyin' how to handle 'em." That seemed to set-

tle the matter for him.

"But I'm goin' now. I'm tired and have got to sleep. Everybody in line with the door there, step aside," he sang out, indicating the area with his arm. They were surprised at the pleasure it gave them to obey him.

Then Cathode Joe loosened the lock, and stepping behind the shelter of the lava-block jamb, kicked the door open. A rocket-bullet sang through the air and flattened itself against the opposite wall, sending a little cloud of white dust upwards, and a rain of chips to the floor. The men in the room stared at Joe with wide eyes, while Joe grinned.

"You see," he said, laconically.

The bartender was searching the crags and crevasses with a field-glass at a peep-hole.

"Save yourself the bother," Cathode Joe said. "They can shoot that good at three or four miles with one of those cannons, an' that country is a stage perfectly set fer cockroaches to hide in." In fact, the number of possible ambushes in that wilderness of white rocks and inky shadows, was infinite.

"What'ya gonna do now?" asked Lefty Wagner, blankly.

"Where's the sheriff's office?" Joe inquired. They pointed it out to him through the window, hesitating to appear too near to the opening.

JOE took two sealed glass ampoules from his pocket and threw them out of the door. A cloud of dense, brown smoke rose up from where they struck the ground. He stepped into this smoke, and disappeared from sight. In a moment, the hum of his cycle was heard receding swiftly up the street. Several rocket bullets zipped and plopped about, but no harm was done.

Cathode Joe was inside the door of the sheriff's shack, dragging his machine inside with him, then when several rocket-bullets hit it on the outside, he was already behind shelter. It must be remembered that the low gravity on the Moon enabled him to move with a speed that would have been impossible on Earth. There was a table and a chair and several blankets made of the wool of the Moon fungus. Joe was tired. But he did not roll into the bunk. After taking a drink of water from his flask, he made a long roll out of the blankets on the bunk. Then he took his hat and mowl (the curtain that protects the back of the neck from the searing sun's rays), and arranged the whole thing to look like a man asleep. Then he curled up on the floor to sleep, just next to the door.

The Moon colonists have a new set of sleeping habits, in order to economize as much as possible on working time during the two weeks' diurnal period. They have a 22-hour working period followed by a four-hour sleeping period; this is the "siesta." In the middle of the long work period there is a short knocking-off interval, called the recess. During the two weeks' long lunar night, they make up for the energy (if they aren't too high up in the social scale) lost during the long period of daylight and activity. It is amazing what extremes the human body is capable of including in its adaptivity.

Cathode Joe slept a little while; not more than a few minutes, he judged. Then a faint noise awakened him. He became alert and listened. Again the noise came. It was a "plop" from the direction of the rolled-up blanket; and near one end of it were two bullet-holes; and there was a faint, nauseating odor from the discharge of the rocket bullets. Through the window he could hear the crack of cathode guns and the sizzling

of D-ray sparks; and the smell of ozone wafted in. The steps of a crowd milled outside the door.

"Too bad!" said the voice of Lefty Wagner. "They got 'im."

Lefty Wagner's face looked in at the window and behind him were a score of armed men. Cathode Joe Stood up, grinned, and unlocked the door. The men gasped in relief, looking from him to the punctured blanket, and back again. With new courage in their own hearts, they congratulated him.

"They're gonna wear yuh out," Lefty Wagner said. "There's three o' them to take turns sleepin'."

"Youh oughtn't 'a' took that star," suggested another. "Then yuh could 'a' blew 'em down on sight, like a crater snake."

Cathode Joe smiled.

"Guess I was brought up to play too square," he said. "I've had dozens o' chances to do that in the past seven years. Here, I see it ain't goin' to be no trouble to get 'em legally. Never mind my rest. It's as important as not drinkin' liquor, but I'll see to it."

HE trundled his pillar cycle (so called because of its caterpillar-like progress) outdoors, asking the men to crowd around him while he mounted. Then with a sizzle and a hum, his machine dashed up the village street, and in a few moments he had disappeared, a tiny dot up the road.

No one but an extraordinarily skilled rider like himself could have made the trip that followed. Like a bullet from a gun, he dashed a dozen miles straight down the road, and then turned to the right into rough country. Over rocks and along gullies, bridging dizzy chasms hundreds of feet deep, skimming the edges of precipitous craters, spinning for miles along the top of a ray not over a foot wide, he picked his way with swooping speed and unerring familiarity into the heart of that terrific desolation. How any human being could stand the shaking and jouncing and twisting, in the blistering glare of the sun on the white rocks and sifted pumice, and still live to tell it, was a revelation. But Joe had been deliberately trained to that since early babyhood.

Finally he slowed down, looking carefully about him for landmarks. At the foot of a tiny crater, too small to be seen in terrestrial telescopes, he stopped. Pushing aside two jagged lumps of lava, he revealed the opening into a cave, into which he pushed his machine. Putting the rocks back in place, he climbed up the side of the cliff into a smaller opening, which communicated with the one below. From within, he strung the cords from his shield-coil, and arranged them so that they would discharge his big disintegrator-ray tubes at anyone who tried to get in. These D-ray guns cover a wide angle at a short range, like a shotgun, and will make free electrons out of anything in their range. Then he lay down and went to sleep. For four hours he slept undisturbed and much refreshed; and in another hour's wild riding, he was back in the Slapping Holster saloon.

The bar-room was unusually crowded for that period of the "day." Most people ought to have been at their work at this time. But, since the end of the siesta, they had waited for something to happen, and were getting impatient. Neither Cathode Joe nor the Hall Brothers were showing up for an hour and a half after the work-day had begun. What was the matter? Were both sides scared out?

SUDDENLY there was a loud hum outdoors, a shining streak down the street of Thorium Gulch, and a dense,

rolling cloud of black smoke in front of the door of the Slapping Holster. A tall man stood in the door with four guns levelled at the crowd, two in his hands and two in his armpits. It was Cathode Joe. A careful search of the room showed him that the Hall Brothers were not present. He dropped his guns, grinned, and walked in. Dozens of them came up to him to shake hands in their delight in seeing him, and many drinks were offered him.

"Sorry," he always said in reply to these offers. "I'm a tough guy, but I can't afford to drink. I got to shoot straight."

"We'll feed yuh, anyhow," the bartender said.

A meal was set out on a table for him, with turtle steak smelling so appetizingly that all mouths watered, and big, luscious, yellow moon-beans, with coffee and wheat bread brought from the Earth. Lefty Wagner and a half dozen other well-wishers watched through the door and windows while he ate.

"It's time for the bus from Copernicus," said one of the loungers.

"Past time," the bartender commented. "She's half an hour late right now."

"Wonder what's holdin' her up?" said another voice. "Them babies travel on time."

Suddenly the watchers at the windows sighted the bus, and remarked upon its slow progress. It finally rolled up to the door in a wavering way, its warning signal blared, but no one got out. The crowd poured out of the Slapping Holster and found the driver wounded; as he brought the bus to a stop, he slumped down over his wheel. Inside, one of the passengers was dead from a cathode shot, three were looking blank and dazed. Only one of the people, a woman, seemed to be awake to the situation. She looked to be in her late twenties, comely and attractive in a modest way.

"Hold-up," she replied to inquiries. "Three men, about ten miles back."

Everybody looked to Cathode Joe, to see what the new sheriff would do in the situation. He seemed calm in contrast with the excitement of the rest.

"Outrage!" exclaimed one of the dancing women.

"Now I've got something to go on," Joe said calmly; "interfering with official traffic."

The dancing-woman turned on Joe.

"The hell with you, stupid! Official traffic!" she sneered.

"Look!" she pulled at Joe's asbestos coat-sleeve. "Clothes all tore off o' her. Black an' blue bruises on 'er. 'N she's *purty!*"

Joe's face reddened. He turned in the other direction and edged away.

"Who's she?" he asked in an official tone.

"That's Appenine Ann. Got all 'er money too, though that ain't sayin' she ain't got plenty more where 'at come from. C'd have any man on the Moon, she could. An' they ain't all ugly turtle-punchers. But she ain't havin' any. Come, honey, let's leave this stupid robot an' get ye some duds. An' the girls 'll raise ye some dough."

"Who's Appenine Ann? Joe asked of Lefty.

"Mighty fine woman, that," Lefty said. "Ain't never nobody broke ner hungry got turned down on a job or a handout at her plantation. "Ya know, Joe," Lefty put his hand on Joe's shoulder. "We're all tough ridge riders 'round yere, but Appenine Ann can go around without gun nor tube, and nobody's touch 'er anyw'ere. Till these slimes comes in. We're sore. I tell yer! Ain't a man wouldn't give up 'is life ter help 'er!"

"Well, givin' up 'is life won't help 'er," Joe said sarcastically.

A KNOT of men, each armed like a battleship, approached, wheeling their sinuous cycles.

"Here's yer posse," Lefty said.

"Hy!" Joe shouted at them. "What good d'y'all think it's goin' to do anybody fer you to commit suicide. If ye want to help me," he roared, "get back under cover and stick around."

"Beggin' yer parding," one of the men said, "we all got our dredgin' notion who did this!"

"Who ain't?" said Joe calmly. "Now duck yer hide."

The first thing that Joe did was to look at the automatic photographic road-record of the bus. When developed, it showed three masked men in chaps and topees, but on none of the pictures was it possible to tell who the men were. Joe called up the bus company's central station at Copernicus and asked for the automatic television record of the trip of the bus. It showed the picture of the commission of the robbery, by three masked men, whose first act was to disable the driver so that he could not turn in the radio alarm. Therefore, the television recorder automatically followed the bus, which went on while the highwaymen stayed back on the road at the scene of the robbery, and gradually disappeared from sight on the pictures.

"Their challenge to the new sheriff," thought Joe.

A triple sputter was heard faintly far up the highway, cadencing rapidly into a loud, low-pitched roar. But, it was from the North, the direction opposite the one from which the bus had come. The men lounged in the barroom, and loafed in the various lava shacks of the village, puzzled. Gaily and nonchalantly, the three Halls rode into town, and leaned their cycles up against the Sleeping Holster, where Cathode Joe dawdled languidly.

But in a flash he had them covered by all four of his weapons. How they had appeared so instantaneously, was a mystery.

"Once more I suggest that you do not bother with your shields," he said coolly and in perfect English. "Just merely as a matter of information I am reminding you that I can blow your arm off to the elbow before you crook a finger—so don't crook it."

By the time he got through talking, numerous rocket-rifles from the crowd had them covered, and a positive electrical field is no protection against a lead bullet.

"Lefty, you take two men an' search 'em, while I pet my triggers," Joe said. "Everybody comin' into Thorium Gulch from now on gets searched, till we find out who did this bus job."

"How could we a' held up the bus; we come in from the North," said the youngest Hall.

"You ain't got no right to search us," snarled Buck Hall.

"You jest wait. Search all yuh want," roared Bill; "it won't help you none a week from now."

So sure were some of the crowd of finding the loot on the Halls, that they were already stringing nooses on the eaves of the saloon. Appenine Ann watched it all in silence from a window.

HOWEVER, nothing was found on the Hall brothers. They stalked sullenly away under the cover of a dozen levelled guns, muttering incoherent vengeance. The crowd was distinctly disappointed and felt that it had been cheated out of something.

Appenine Ann started forward to where Joe stood alone in front of the

crowd, as though to talk to him. But Joe, with his inimitable manner of total unconsciousness of the presence of women, abruptly turned and walked toward the sheriff's shack. The woman gazed after him. She partly raised both hands for a moment, as though to clasp them; and then seemed to change her mind and let them drop limply at her side. She remained standing still, with her head drooped. In another moment several of the other women were about her, telling her of Cathode Joe's tiff with the ruffians of the day before.

Cathode Joe proceeded a few steps and then halted.

"Hy! yuh three yaller varmints!" he yelled. "Stop a minit! An' han's off them shields!" Never before had Thorium Gulch heard anyone talk to the Hall Brothers in that way.

At his shout, they whirled about. The two older brothers did so without turning a hair, with a control born of long years of frontier experience. The younger brother's arm gave a momentary unconscious twitch toward his holster. In a moment he had recovered his control and put his arm down, but not before a blue streak from Cathode Joe's gun had sent his hat spinning into the air, a crushed and twisted mass. Joe stood there a moment, covering them with his four guns.

"I jest want tuh tell you bozos that I don't like the way yuh look at a lady. An' I shoot first. I don't wait. Now beat it!"

"We're gonna git you fer this, Cathode Joe!" the eldest of the brothers said in a husky voice.

"I'll be at the Slapping Holster at next recess," said Cathode Joe cheerfully. "In the meanwhile don't do anything I wouldn't do."

He stood in the middle of the village and watched them shuffle to their machines. Men nudged each other:

"There'll be ol' Billie Hell poppin' in Thorium Gulch tonight!"

"Appenine Ann!" Cathode Joe started as though someone might have heard his half-aloud meditation. He finished the thought in silence. "Looks a powerful lot like I might 'a' seen 'er someplace sometimes."

During the long working shift she was so much on his thoughts that it irritated him; for he had nothing to do. There was a sprinkle of people in the Slapping Holster during the entire period, for working conditions are less strenuous than on Earth, and anyone can lay off a while if he feels like it. Long before the recess hour, the bar was crowded with people, and a rustling confusion reigned. Gambling was only desultory, though drinking was brisk and red-neck flowed freely. The radio clattered and banged continuously. The atmosphere was electrified with suspense.

THEREFORE, when a dense cloud of brown smoke appeared just outside the door, all eyes were glued in that direction. But as the smoke cloud cleared away, no one appeared. When eyes ceased peering out the door and looked about the room again, they discovered Cathode Joe standing at the bar covering them with all four guns. He appeared satisfied, and seemed about to put away his guns.

Suddenly he stopped at the alert, and listened. Then, like a streak of lightning, he turned around and fired into a dark corner of the room. There, another cathode gun cracked, but its blue flash wavered toward the ceiling, and Charley Hall slumped motionless on the ground. To those near him, a clear, round hole showed in his chest, and then it filled up with blood, which spread over the floor.

Cathode Joe jumped behind the bar.

He expected more shots. He found that he could see everyone from his crouching position in a dark corner, in the long mirror behind the bar. Then he hung his hat on the butt of his rifle, and peeked it cautiously around the edge of the bar. Not a shot, not even a stir responded. After a few minutes, Joe was convinced that the other two Halls were not in the room. Even yet he was cautious; he leaned back with his four guns at alert, and studied it over again. No. The only Hall in the room was the dead one in the corner.

His reflections as to what to do in this dangerous situation were interrupted by the bartender.

"We're all rather worried," the latter said. "Appenine Ann runs an account in the Thorium Gulch bank. She just drew out all her money and started out to Copernicus alone in a little car. Fool trick. I don't know much about why wimmin do the stuff they do. Howsomever, the other two Halls are missin'!"

Cathode Joe suddenly stiffened with an unnamed anxiety. He welcomed a challenge flung in the face of his new authority, had not an innocent woman been involved. For an instant he stood there, pausing only an instant to have a kick at Charley Hall's dead body. He ran up the street in his clumsy chaps to where his caterpillar cycle was parked. The obvious thing to do, would have been for him to start down the road in pursuit of the villains. But Cathode Joe never did the obvious.

THERE was only one course open to him, if he were to help Appenine Ann, without calling in help from the other County; and that was the last thing he wished to do. That was to make a cross-country detour at a higher speed than theirs, and head them off by coming back to the highway in front of them; to be waiting for them when they arrived. The horror and magnitude of that undertaking is appreciable only to those who know those trackless wastes, the seas of treacherous pumice-sand, the ranges of mountains two to five thousand feet high, the cracks and gullies and crevasses, the scattered rocks and boulders, the straight "rays" of rock extending for hundreds of miles. No one who was not thoroughly acquainted with every square inch of the country, and who did not wear a pillar cycle like his own pair of shoes, could do it.

Joe dashed a few miles down the highway, and shot off to the right on a sideroad. After this latter began to carry him too far out of his direction, he struck directly across the ragged, barren country. Occasionally he was able to take advantage of a frontier road or trail. Again, he could make a few score of miles along the top of a ray going in his direction. But much of the time he was jouncing over rocks and leaping over gullies, threading his way between the boulders like some mysteriously guided bullet out of a gun. Now the front half of his cycle would be swung straight up into the air; again the rear half would stream out like a pennant, six feet above the ground. Up and down, and wriggle sidewise, and slither like a snake at the speed of a streamliner between boulders as big as a house; careening to one side almost flat with the ground; bent almost double, it was hard to say where man began and machine ended. If there was anything more amazing than that machinery could stand such speed and pounding, it was the human flesh and bone could do so.

Nevertheless, through all this, Joe watched his course, and laid it so that he had his machine hidden and silenced, just as his three dots appeared in the

distance. Depending on the surprise element, and because of the need of rapid movement, he discarded his heavy rocket-rifle and anode shield. He hid behind a boulder at the edge of the road, so that he could let Appenine Ann's car pass, and then step up and have it out face to face with the desperadoes.

His entire plan took a nose-dive, when the car drew to a stop a hundred yards away; and the cycles drew up to it and stopped also. The villains dismounted, each with a gun in one hand, and they roughly jerked the woman out of the car. She staggered a moment and then recovered her poise, and Joe boiled in indignation. Women were held more sacred in that frontier country, than they are on Earth. In a moment, the villains were shooting at Joe, and splinters flew off the rock behind which he hid.

"By God!" Joe breathed. "They found me out."

It was too far for the range of a cathode-gun, and the group of three were all too close together. Throwing caution to the winds, Joe leaped over the rock, and ran toward them in big jumps, hurrying to get them within range of his pistol.

At the sight of him, the two men forgot Appenine Ann for a moment. She turned and gave one of them a push, which caused him to stagger and drop his rifle. The other whirled and struck her in the face with his fist. Cathode Joe gritted his teeth as he saw her fall to the ground; yet this was exactly what he needed. He stopped, took careful aim at the upright men and fired. The range was just a little too great to be the best; but one of the men fell, writhing in agony from the burn that the shot had produced, discharging his rocket-gun wildly into the air.

JOE started desperately running again. For the other Hall had picked up the limp, unconscious woman, and held her in front of him as a shield against Joe's fire. He was aiming at Joe from behind her with a rocket-rifle. His shot cracked out, and Joe fell headlong to the ground, blood spurting from a wound in his chest.

The ruffian let the woman drop roughly to the ground, and ran exultantly toward Cathode Joe, while the other, who had been burned, attempted painfully to get to his feet.

"Tackled the wrong bunch," the wounded villain was mumbling.

Suddenly, Joe heaved himself into a sitting position. His face was pale, his jumper soaked with blood, but his hands as steady as ever. There were two sharp cracks from his cathode guns, and both Halls fell to the ground with great chunks of flesh ripped from their chests. Joe sank back into the spreading pool of his own blood.

After a long, pleasant period of unconsciousness, he awoke to a giant throbbing in his chest. His eyes opened and the darkness went away, and there was Appenine Ann bending over him. She was gently opening his tunic, and a soft light shone in her eyes.

"I'm going to take care of you, Joe," she whispered softly, as he stirred.

"You see who I am, Joe?" she whispered, an illumination of joy spreading over her face. "I'm going to take care of you. For seven long years I've wanted to. You'll let me?"

Joe looked. An expression of surprise on his face turned to one of pain. The pain he felt was a worse one than that of the bullet in his chest. Appenine Ann went on:

"Seven years I sort o' hoped for you, Joe. I've followed all the news of you.

I've never looked at another man. I've waited, waited. Hoping."

"You! you! Cathode Joe gasped. He pushed her away from him, with a look of disgust on his face, sinking to the ground with the fatigue of the effort. He spat out a mouthful of blood.

"Alice Anne Dawson! I might 'a' known!"

Alice sank to a sitting position on the ground, put her face in her hands, and wept silently. But only for an instant. Suddenly she looked up bravely through her tears.

"Yes, Joe. I love you. I've always loved you."

Joe shook his head feebly and closed his eyes.

"Joe! You've got to believe me. I love you, Joe, and you know it. Your own life has shown that you know it. You've got to believe me, Joe. I love you."

"Then why did you—"

"Poor Joe. You're too weak to ask it. Why did I laugh in your face, and wave insolently at you, and ride away with the Halseys?

"Joe, I was always loyal to you. I fought these men with my last bit of strength. I did not care if they killed *me*. They had my feet tied in the car, and they had a long-range bullet-spray aimed at you. They *made* me do that under the threat of riddling you with a hundred bullets; they forced me to make you think I was enjoying the lark. They had a grudge against you, because when you were just a boy, you caught them chiseling yttrium on the plantation. They weren't particularly interested in me. They wanted the loot from the plantation, and they wanted to disfigure you for life. I escaped and passed the lunar night at a nearby ranch.

"But I couldn't find you, Joe. My father was dead. The plantation was a wreck, the crew were killed. I needed you terribly then, Joe. But I became successful with my own little capital. I wrote and wrote to you, but the letters always came back. I tried to see you, but you would not look at a woman. There was no catching up with you.

"Many times, Joe, during those seven years, I wanted to come back and claim the ranch as my inheritance. But I let it alone. I knew somehow it would bring you back, and bring punishment on those rats.

"Do you believe me now, Joe?"

JOE felt himself growing very weak physically. But in his heart there was a peace and lightness it had never known before. A great bitterness, a great conflict was gone.

"You're beautiful, Alice," Joe said. Streams of blood trickled down her face from a wound in her head; her hair was matted, her clothes were bloody.

"We can't be silly now, Joe," Alice said, suddenly becoming efficient. "I've got to stop this bleeding in your chest." She opened his tunic and cut away his shirt, as skillfully as a professional nurse.

"It's a lung wound, and you'll get well," she pronounced expertly. Obviously it was not her first nursing experience. "I'll get you to the hospital at Copernicus, and in a month you'll be better than ever."

A deep humming sound came from up the road; a scattered string of pillar cycles arrived on the scene. At that, the Thorium Gulch posse had made good time on their vehicles. Several of the men shouted for joy at seeing the two villains stretched out on the ground with their chests ripped open. They promptly searched the dead men.

As relief hove in sight, Alice dropped to the ground, dizzy from the loss of blood. Joe groaned and closed his eyes.

"No money on them!" exclaimed one of the men who were searching the dead desperadoes.

Timid and awkward hands searched the prostrate woman.

"Hey! What's the idea?" she demanded, opening her eyes.

"They've hid your money," one of the men said apologetically.

"You stupid gwoks!"

She looked quickly at Joe, who continued to lie motionless with his eyes closed. "There wasn't any money," she whispered. "I never took any out of the bank. I knew that Joe had to have a chance at these snakes or they would get him first. So, I just told the girls, and started out."

Old Judge Hermsen drove up in a swift car. He recognized both Joe and Alice with a benignant smile.

"Bless you, my children," he said kindly. "I kin see in yer face, Alice, that he will get well. There goes Thorite County's beautiful new jail!"

"Oh no it doesn't," Alice protested. "I got a place up Appenines way, and I need Joe to help me run it. So, Thorite County gets the Dawson plantation and the Jepson mine—but on my conditions. You can build a jail if you want to, but most of the money goes for a block of family apartments and a school."

Joe grumbled something, and his hand groped in the direction of Alice's.

THE END.

THE VENGEANCE OF MARTIN BRAND

(Continued from page 33)

Brand stared at him, lips tight. He said nothing.

Killian flushed. Then he rose to his feet.

"Take him out, boys," he said. "Lock him up in the cell. I'll take care of him later."

The two guardsmen marched Brand between them, out of the door and down the tunnel. They took several turns, during which Brand saw many more soldiers, both Earthmen and Martian. Here and there he saw a Lunarian, also in Martian uniform. His lip curled. This was a hotbed of traitors. But the seriousness of it all was beginning to strike home.

The inside of the moon was the invasion base that Commander Wilson had feared it might become. Not a possible future base, through a preliminary invasion of Luna by Mars, but an actual, existing, and extremely powerful base, ready for action.

Luna wouldn't be invaded from space, constantly watched by the Luna space fleet and the Lunarian army, but from her own bowels, treacherously, swiftly, completely. She wouldn't have a chance. And Earth would then be helpless. She wasn't prepared. She couldn't defend all of her great area from attack, which could be directed at will at any particular spot at a few hours' notice.

"Just one chance!" prayed Brand. *"I've got to get away!"* His whisper was inaudible this time.

IN A few moments the guards halted him before a barred door, opened it, thrust him inside. They locked it and

one of them took up station outside, while the other returned.

Brand found himself in a rather large cave. It led back into darkness for quite some distance, and he explored it thoroughly. But there was an end to it, and no other exit. His prison was an effective one.

He sat down. For several hours his thoughts raced. But the more he thought the more hopeless things became. He was trapped. Jeffry Killian held all the cards. And through him, Mars held a winning hand. There was no telling when the blow would fall, but it semed certain that it would be soon.

Several times the very pace of his thoughts brought him to his feet, to pace up and down, while his fist smacked repeatedly into his palm. Muttered exclamations escaped him. Then he would sit down again, and think furiously.

"Got to make a break for it," he muttered. "As soon as they take me out of here . . . even suicide is better than letting this happen, without trying to prevent it."

His face became grim. He realized that at last the luck of Suicide Martin Brand had become just that, luck. And this time it was the other kind.

Outside the prison door came the sound of a short, sharp scuffle, a heavy thudding blow, and the sound of a falling body.

Brand leaped to his feet, listening intently.

The key grated in the lock, and the door swung open. A shadowy figure entered, came toward him.

"Martin?" came the low call, melodious, haunting, familiar.

Brand froze, his blood congealed in his veins.

"Martin?" came the voice again. "Are you here? Please answer me, Martin."

Brand stumbled forward, his voice a hoarse croak of amazement, of wonder, of stunned surprise.

"Estelle!" he gasped. "Oh, my God, Estelle! It isn't . . .

Now her soft hands were in his, and soft lips pressed swiftly, hurriedly, anxiously against his own.

"It is!" she whispered. "I've come back to you. Thank God, Martin, that I found you in time. I've been eating my heart out, wanting to tell you what a fool I've been, and how horribly sorry . . ."

"Estelle!" he choked out, reeling beneath the shock of it all. "You . . . you're all right? You aren't . . . ?"

"No," she said softly. "I'm not . . . insane any more."

Her hands tugged at him.

"Come, quickly," she b e g g e d. "We've got to get out of here, before Jeffry finds out . . ."

He allowed himself to be led out of the prison, past the unconscious body of the guard.

"Jeffry?" he mumbled. "Does he know . . . but how . . . I don't understand . . ."

"Never mind all that now!" pleaded Estelle Carter. "I'll explain later. Right now we've *got* to get away. *Got to!* Come . . . this way. I know a way out."

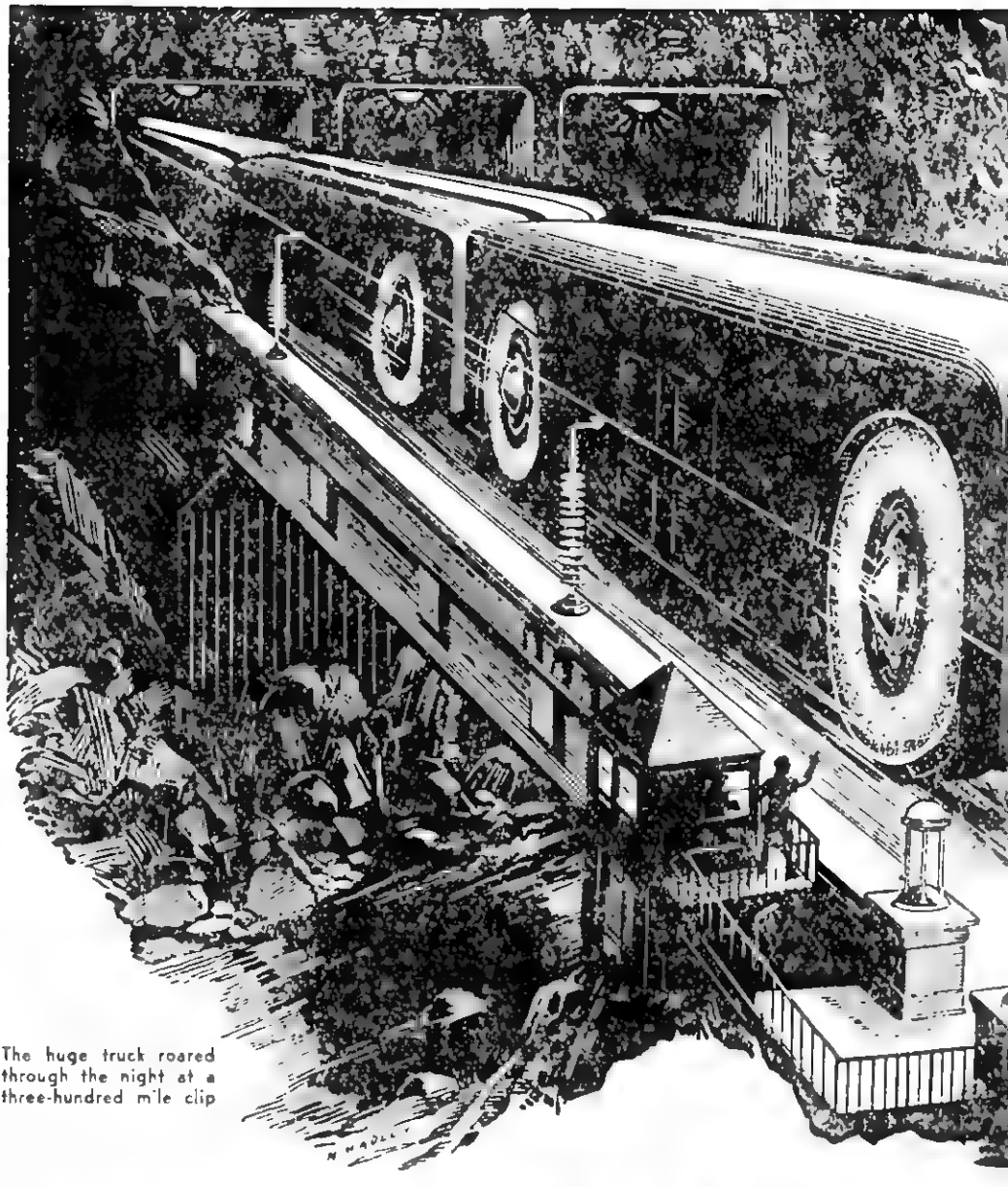
(To be continued)

Here before him stands the woman Martin Brand loved ten years ago; the woman who jilted him at the altar. What does it all mean? Sane, more lovely than ever, she has come to the most dangerous place in all the solar system to rescue him.

And who is the woman who killed a man to allow him to escape back at the Star Club?

How can Brand stop Jeffry Killian's plans to invade Earth?

By all means get the next issue!



The huge truck roared through the night at a three-hundred mile clip

DEATH RIDES AT NIGHT

It was death to ride Translucent Highway tonight; but a coward's brand is worse!

By LEROY YERXA

"ARROW" LAWSON, folded uncomfortably into the tiny "Air Bug," clutched the side of the cockpit tightly and watched the great translucent highway reel backward beneath them. From their perch three thousand feet above the great truck lane, the glowing stretch of Trans-World Highway was visible for a hundred miles in either direction. Ken Barnes had the Bug floating silently. Suddenly he pointed a finger horizonward toward the lighted towers of East Station. From the flashing minor metropolis a tiny beetle crawled along the surface of the highway. Arrow Lawson nodded grimly, his worried eyes following Ken Barnes' finger.

The beetle was under them now, a mammoth Diesel truck thundering

along at two hundred miles an hour. Abruptly it staggered as though a giant hand had grappled with it. A rosebud of flame mushroomed from under its hood.

The "Air Bug" jolted into a mean air pocket and Lawson lunged wildly, clutching at his companion's shoulder for support. Releasing his grasp, he peered down again, his face red. Damn, he could never get used to air travel. . . .

Below them the truck had plunged wildly from the highway. The tractor was bathed in fire; the trailer a twisted, crushed mass of aluminumite. For ten miles to the rear of the accident the translucent lane had changed from its normal glowing green to the angry red of the d a n g e r warning. Traffic screamed to a halt and tiny figures swarmed around the blaze. Lawson was sick.

"Take her down," he ordered.

The twin rockets in the Bug's tail exploded behind them, and they shot from the sky. Other patrol scouts were roaring down from all directions. A mob had clustered around the wreck by the time Ken could land.

They fought their way through the crowd, Lawson conscious only of his two buddies who were frying in that cab. A pitiful, charred leg hung at a crazy angle from the crushed metal. The burned boot still clinging to the crushed bone. A rescue attempt was useless. Arrow looked away, his stomach turned by the sight.

The men behind him were talking.

"That's him." The voice wasn't friendly. "Lawson; supposed to be Trans-America's ace driver—"

"Yeah, what about the driving he *ain't* doing, while these other guys are cracking up?"

Lawson turned quickly, but the owners of the voices were hidden. His face reddened, as he realized that these men had been his buddies. Now they thought he was a coward. If he couldn't get a line on this thing pretty soon, there would be a lot more talk. He turned again to the wreck.

HIGHWAY scouts had snuffed out the fire with their small gas guns and one body had been removed and carefully covered. With torches they were at work cutting the other driver free.

Lawson dropped on his haunches and watched them work, a puzzled frown on his face. Eight trucks gone, and he still couldn't find that one little clue. Fifteen drivers, burned and broken corpses and Arrow knew he'd have to get action soon or go nuts. His gray eyes wandered over the mess once more. He studied the hulking death trap carefully, searchingly— The metalode antenna . . . on his feet in a flash, the long legs carried him like pistons to the side of the upturned cab.

"Ken," he shouted, "I've got it."

A murmur went through the watching crowd. Some of the drivers pushed forward. Ken came on the double.

"What?" he dropped on his knees beside Lawson.

"The antenna," Arrow's voice was hushed in utter disbelief. "The damned thing's *straight*."

For a minute Ken understood, then he shook his head.

"It's no good, fella'," he stood up and stretched wearily, "You're getting to the point where a straw isn't too small to grab at."

Lawson didn't hear him. He was running the tips of his fingers along the straightened rod, mumbling under his breath.

"The cab turned on its right side," he said. "Something straightened that antenna like a match stick from

the *left* side."

"Then the same vague *thing* was responsible for the others. We didn't notice the antenna on *them*." Ken's voice was tinged with good natured sarcasm.

"Because the other trucks piled up and destroyed the metalode," Arrow was still on his knees, eyeing the slim metal strand with a puzzled expression. "It's the last thing we'd suspect after all the safety lectures they pound into us about this thing."*

ARROW eased the dual-controlled tractor of Transport Six down the long ramp to Trans-American's loading dock. The night spent with Barnes cramped into the tiny Sky Bug's cockpit hadn't been helpful to his frame of mind. Unfolding painfully, his long legs touched the ground and almost failed under him. He winced, and a scowl crossed his dark face. Being the longest cuss in the outfit had its drawbacks. The boys had laughed at him that first morning eight years ago. But after the gawky kid, Lawson, had put a few Diesels through their paces, the laughing had been replaced by glances of respect.

He walked toward the main office, thinking about the grab he'd made at Ken the night before, when the plane had dropped sickeningly.

Lawson's father told him it was the fall he'd taken from a crib as a kid that made him fear the air. That was as good as anything. He knew that any place his feet couldn't stretch out and touch solid earth wasn't the place for him, and he thanked Ken silently for shutting up like a clam about the incident. Anyone but the understanding patrol scout would have had the story spread far and wide by daybreak.

Without knocking, Lawson opened the monosteel door to Riley Blackson's glittering office. He folded up slowly in the leather chair beside the desk. Blackson's head was bowed. The owner of Trans-American was a

* The metalode antenna was developed during the latter part of the twenty-third century. A fuller understanding of its use will be made clear by the history of Translucent Trans-World Highways. Plastic highways were in use as early as 2144. With the puny efforts of twentieth century scientists exhausted, more advanced students of plastic attempted to study its practical uses. Professor James T. Flannigan of East Station Metal-Lab, caused the first slabs of plastic to be laid over the route of the ancient Pennsylvania turnpike. The run made a splendid proving ground.

Plastica (trade name for highway plastic) could be applied in semi-fluid form at the rate of two hundred miles a day. After solidifying, Plastica became adaptable to heavy, fast truck traffic with no further worries about upkeep.

Plastica, however, like the plastic comb when drawn through your hair, generated dangerous amounts of static electricity. Before the high speeds of two and three hundred miles per hour could be reached safely, this problem had to be conquered. During the early days many trucks were destroyed by this invisible agent of death.

In 2385, John Williamson, traffic expert had solved the problem with a simple metalode antenna. This antenna, its metal a thousand times stronger than steel, projected from the left side of the tractor for three feet and turned a ninety degree angle to contact the highway edge. With the end of this "Columbus and the Egg" mystery, no further accidents were reported.

Translucent highways were undermined by a series of almost human electric switches. Electriglow lamps caused the surface to glow a dull green color when traffic was moving. If any disturbance occurred (stalled truck, entering traffic, etc.), the highway's color would change, like the wily chameleon, to a bright, warning red for a distance of ten miles to the rear of the disturbance. All country rules forced drivers in this zone to halt at once until the emerald go-ahead signal re-appeared.

Translucent highways at first connected the two great cities of East Station on the Atlantic Coast and West Station on the opposite side of America. Its only stop in this long run was Halfway Point, situated for the comfort of highway drivers in the center of the country, a half-day journey from either starting point.

With world peace as its objective, the highway was later stretched on aluminumite, gyroscopically stabilized pontoons across the oceans. Translucent Trans-World carried billions of tons of freight to all corners of All Country Union.

small man, with a large, snow-white head. The stature of his body did not matter beside the keen, eager methods of a clever brain. Forty years of nursing this truck business into the front line had given the man character that more than made up for weak muscles. Without looking up, he spoke.

"I was talking with Barnes on the telascreen . . ."

Lawson nodded, understanding the man's anguish. Their eyes met, Blackson's tired—caged.

"He says you found something?"

"Perhaps I'm wrong . . . " Lawson stood up and strode across the room. Down through the polarized walls he could see the long row of Diesels standing at the freight shed.

"Something has been fooling with those *fool proof* antennas. Every truck is checked before it pulls out. I say *something* because there isn't a living person who could touch a truck while its moving at two-hundred per . . ."

Riley shook his head dejectedly, the muscles of his mouth twitching.

"Only tremendous force would straighten out those rods. "I'm sorry, boy. There just isn't any such force."

ARROW'S eyes were glued to the desk top. Riley had reached unconsciously toward a small metal dog. Drawing it slowly across the glass top, he watched its twin jump to its side, drawn by the magnet in the base. They clung as one under his finger.

"Such a force could be *made,* if the motives were strong enough."

"That's what sticks me," Blackson pushed the metal pups away in a gesture of despair. "How did it get *our* number?"

"That's what I've got to figure out," Lawson answered slowly. "The motive could be simple. It might even be you . . . Insurance, perhaps?"

Blackson was on his feet, his chin white with anger.

"Arrow," he spoke evenly, "if you meant to be funny, I fail to see the joke."

Then he slumped down again.

"I—I'm sorry, I know you're kidding. Guess I'm kind of up in the air about this mess."

Arrow didn't answer. He was sorry now that he'd said it. Every man in the outfit was a suspect. Every man was straining his nerves to a raw edge to keep going.

The door opened quietly and Eve Blackson stood just outside. Riley's daughter was startlingly lovely with the anger that had spread across her pink cheeks.

"It takes a *star* driver to sit in the office and accuse Dad of murder, while the other boys are out fighting . . ."

Her voice broke the silence like a bomb shell. In spite of himself, Lawson jumped. He turned toward the girl, his throat dry and shame slicing any answer short. Every muscle of the girl's smooth body shook with temper. Her eyes burned into his own, full red lips quivering in anger.

"Lawson," Eve said, using his last name with cutting emphasis, "you failed the air exams. If it hadn't been for that yellow streak, you'd be flying with Ken Barnes and the Patrol instead of being a cheap freight pusher. Now you're even worse than that."

She walked to the desk, tossing her white driver's gloves angrily on the glass top. Her step was as graceful as an aroused tigress. The crash helmet dropped back, releasing waves of smooth auburn hair. He watched her, fascinated by the taut, throbbing neck. Her spotless white uniform contrasted sharply against the browned skin.

Over Eve he had no control. For

eight years she had taken every opportunity to mentally slap his face. This time the tirade left him without a word to say. Like any normal man, he had loved the girl from the first day he saw her. She handled the great fourteen wheel Diesels like sulky children, an object lesson in itself.

There wasn't a driver in the Trans-American string who hadn't at one time or another returned from a long haul with Eve at the duals, their cheeks and ears smarting. This angel of the transports was admired and coveted by every freight pusher from one end of the highway to the other.

Every attempt on her part to make what *she* considered a man of Lawson, had failed. He couldn't even with her own love for the road, convince the girl that something fine existed between a man and the throb of mighty Diesels at his finger tips. His place wasn't in the air.

He walked slowly past her, toward the door.

"Riley," his voice was almost gentle, "I'm going through on the night run. I'll take it alone, now that I know what to fight."

"The hell you will," Blackson shot back. "There isn't a truck that will move out of here until the Patrol cleans up this mess. I'm all through losing drivers."

Lawson looked at Eve. Her lips had shut in a hard, white line. No help there. He left quickly, closing the door with the feeling that something wonderful was hopelessly lost to him on the other side of it.

IT was late afternoon. The pounding on the door was faint and far away. Then it drummed louder against his ears. He sat up in bed.

"Huh . . . ?"

"Lawson, you in there?"

It was Erlich, Trans-American's chief dispatcher.

Lawson tossed the covers aside and reached the door in a jump. Erlich was excited.

"Blackson says you're to report at once," he shot out. "Oil fire on the coast—got to haul explosive . . ." He was gone, down the stairs as though the devil was at his heels.

Lawson dressed hurriedly, grabbed his crash helmet from the chair by the door. In the hall, he took three steps at a time, almost knocked the paper boy over as the kid came up the stairs. The newsboy turned about twice, found a quarter in his palm and a copy of the News missing.

Arrow, driving the plasticoupe with one hand, gulped down the headlines.

METEOR OIL FIELD ABLAZE

Now he knew Riley's reason for calling him. Explosives to be hauled. Trans-American still held its exclusive franchise for trucking all government-controlled dyno-glyc. He whipped the plasticoupe into the T-A garage and bounded upstairs to Blackson's office. Riley was pacing up the room's length, under a black cloud of despair. He turned as Lawson entered.

"Three hours ago the Patrol reported that the Meteor wells are burning," his voice was mechanical, measured like the beat of water. "Someone forgot to oil a pump—friction—and hell broke wide open on one of the derricks. In twenty-four hours the whole field will be gone."

"I saw the paper." Arrow waited.

"Twenty contracts canceled today," Blackson came to his side, one arm on the younger man's shoulder. "The All-Country council was on the teloscreen just before you came. I pleaded with them," his eyes faltered, went to the carpeted floor. "We either haul the dyno-glyc, or else."

Lawson was thinking of the boys who had washed up on the road. With a load of the highest test glyc obtainable, the smallest accident might . . . Riley was talking to him.

"We got ourselves into this mess, boy," he pleaded. "I can't tell you to make the trip. I'm not young any more, and this outfit means all I have."

"I've been asking for it," Lawson said. "Is she ready to roll?"

TRANSPORT SIX, motors idling, stood at the edge of the main platform. A crew of men was hastily daubing the trailer with luminous red paint. Across the tail gate, stenciled three feet high, was the warning DANGER—DEATH ON WHEELS.

At the parts bench he stopped, searching for something. An extra metalode antenna stood in the corner. He picked it up, also slipped a small wrench into his pocket. Walking around the Diesel he kicked the tires carefully, looking for weak spots. Then he climbed quickly into the left seat. With the triple motors roaring he felt movement at his side. Shorty, dual man for "Six" would go through hell as long as Arrow sat at the controls. Without looking, he gunned the heavy power unit. Twisting the neck cord of the helmet, he adjusted it carefully. With all three speed buttons pressed in, "Six" roared up the incline like a bull elephant, charging toward the Trans-World highway.

The Diesel was hitting the necessary two-hundred per as it approached Translucent Highway. Eyes focused on the main line of traffic, he jerked the vibrator cord sharply. The current broke under the highway, and Trans-World turned a warning red.*

Traffic slowed as they zoomed into position on the left lane. Motioning Shorty to take the controls, Lawson locked his own. He bent over to study the route schedule. His eye caught the flash of white breeches, and roved upward, widening with surprise. Eve Blackson . . .

"What in—?"

"I know," her face was a mixture of hatred and pride at the little victory. "I'm not the dual man you expected, am I?"

"And why," he asked icily," am *I* honored with this unexpected pleasure?"

"It happens, *Mr.* Lawson, that this trip means everything to Dad. I'm going through to the Meteor. I'm not so sure that if I didn't the truck might get frightened and jump the road."

Her lip curled, and she sat very straight, looking ahead again as though the subject were closed. Arrow's mouth snapped shut. Riley Blackson allowed his only offspring to have her own way with everything. Right now, Lawson hoped they *would* get blown sky high. She had it coming to her.

THE plastic was stretching before them, passing speedily, smoothly under the singing wheels of the gigantic truck. Miles climbed on the speed indicator, eating up space between them and Half-way Station. With the cool green of the highway killing the burning heat in his eyes and calming his mind, Arrow admitted secretly that Eve would turn in a better accounting

* Because of intense speeds maintained on Translucent Trans-World Highway, the warning signal must be used when entering and leaving the traffic lane. Naturally there is a chance of collisions occurring if the traffic flow is interrupted in any way.

This traffic warning is controlled by a vibrator cord hung from the roof of each cab When pulled, this cord makes electrical contact through vibration against an exposed cable on the surface of the highway at all entering points. The cable leads to the master switch, throwing off the green lights and causing the highway to turn red for a distance of ten miles to the rear.—Ed.

for herself than any other driver he could have chosen. If only the girl wouldn't be so darn hard to get along with.

He saw the flashing signal of a patrol plane cutting in from the north. Bending over, his fingers switched on the teloscreen. It was Ken Barnes.

"Calling Six — Calling Transport Six," came the droning voice of the crack patrol scout.

"Six answering," Eve broke the silence." What's new, Ken?"

"You know what's new, you little hell-cat," his voice like an admonishing father's. "You get off the highway and back to the kitchen where you belong."

"Make me," Eve laughed, her voice tinkling teasingly. "I'm going through to West Station, Ken." She was serious again. "There aren't any rules to prevent it, so go peddle your papers, my boy."

"Arrow—"

"It's no use, Barnes," Lawson had long since given up. "If she wants to go, I can't stop her."

"But—"

Eve switched the screen off, abruptly.

"Ken's a sweet kid," she said dreamily, "but why can't you boys realize that I'm a big girl now, and know how to take care of myself?"

There was no doubt in Lawson's mind that she had grown up. He could have kicked himself for loving the rounded face, the cool sweep of her youthful body. Reaching down angrily, he switched the teloscreen on once more, in time to catch Ken sputtering something unfit for listening purposes. He cut the scout short.

"Ken," Arrow's voice had become brittle and curt. "I think that hunch of mine was right. If I'm on the beam, the thing that yanks out those antennas will tear the devil out of your static indicator if it hits it. Get out front and fly low. Cut your lights. Send us a warning if static starts acting up. I'll try and do the rest . . ."

"Right," the highway scout's shot back like a whip. "But don't blame me if it makes mincemeat out of that little spitfire, after I warned her."

Lawson locked his controls and sat hunched forward, watching Ken's plane. Already the scout was a long distance ahead, tearing along beneath the low clouds.

TRANSPORT SIX nosed ahead past the thousand-mile point. On through the dense blackness of night; up ramps that carried it smoothly over small towns nestled under the glassy surface; into open country once more . . .

Barnes was always ahead, and Arrow's eyes never left the shadow of plane. He tried to relax a little, his eyes aching from the all-night vigil. Beads of sweat were standing out on his forehead, and he wanted to sleep, for a minute, for hours. Then—against a curtain of black, a tiny red flare burned like a pin-prick of blood, faded.

The signal!

"Lock your wheel," his voice came mechanically. "Lock it and sit tight."

Eve hesitated. He turned on her savagely.

"Do you understand English, or do you want to burn in this tin furnace?" She complied.

Slowly, then with increasing power, they became aware of a humming, an angry drumming on the outside of the cab. Alone at the controls he clung to them grimly, the knuckles of his hands drained of blood. His foot lifted from the fuel feeder and they lost speed slowly. One hundred and ninety, eighty, seventy— At fifty miles they were creeping along. The highway went red. The pounding, sparking sound had become terrific, drowning out the engine. Dry,

burning currents of electrified air filled the cab. Their scalps tingled and burned, throats parched. He was riding the brakes with all his strength now, cutting the speed as rapidly as he could. It was stifling hot. In another minute something had to break.

He twisted the wheel gently, bouncing the dyno-glyc laden truck off the highway and onto the smooth shoulder of gravel. At once the heat drained away through the huge wire-woven tires and the engine breathed normally. He looked at the girl. Her face was icy, two small hands clutched tightly in her lap.

"It's all over, kid," he said it kindly. "Switch on and let's get out of here."

DRIVING cautiously with the tractor swaying each foot of the way, Lawson put five miles between them and the scene of the unhuman fight. Then as they stopped, Ken's voice cut over the teloscreen.

"Still with me?" He was jubilant. "I was watching you. For a while I didn't do much breathing. Guess you licked 'em that time, fella'!"

The tiny plane was a scant ten feet overhead, hovering like a humming bird. Ken's head came over the side.

"Good God, Arrow," he gasped, "look at the antenna!"

Eve rose up, looking over Lawson's shoulder. The antenna was gone, jerked clear out of the cab body.

"You knew," she whispered. "You knew when it happened, and still you kept your speed up until we hit the center of that magnetic field."

"It was the only way I had of finding out for sure," he answered slowly. "I had a lead on the other boys, with some idea of what to expect."

The Diesel stopped, and he crawled out stiffly. Under the seat he found the extra metalode antenna and swiftly installed it in the empty socket.

"Rotten job," he straightened up, "but it'll have to do for tonight."

Looking up, he saw Ken's sky bug darting away toward the rainbow of light that was Half-way Station. No stop tonight, even for coffee. The fire fighters at Meteor would be waiting.

Hunching over the wheel he gunned the triple motors and snapped the speed buttons into high. The Diesel took the sudden weight without a murmur of protest, lifting the giant load from the shoulder of the road and down the main traffic lane once more.

"Get some sleep, Eve," he said it without looking around. "You'll be needing it before morning."

Without answering, she curled up on the broad leather cushion and closed her eyes.

IT must have been three in the morning when Arrow finally gave the wheel back to the girl. Exhausted with the strain, he hunched forward against the controls, his head nodding. It dropped to his chest, and Eve thoroughly awakened again, listened to him snore softly, then concentrated on the highway ahead.

At six Lawson still slept and snored peacefully. Suddenly, without warning, the girl jerked with all her weight on the traffic warning vibrator and climbed with both tiny feet on the brakes. The powerful suction of the wheels under pressure screeched the truck to a stop, throwing them both forward in the cab. On the highway a scant ten feet ahead of the halted transport stood a private plasticoupe. Arrow, rudely awakened, was out of the tractor striding toward the car. Eve was at his side, slapping her gloves angrily against her leg as she walked. To park a private car on the Translucent was a capital offense.

A woman leaned against the side of

the coupe, her face frightened. She was frail, mud-covered, and the coarse, dirty hair that flailed about in the wind gave her a scarecrow appearance.

"I—I know I don't belong here," she was anticipating their thoughts, "but—but please help me. I was following the public roads, and became lost." She gestured hopelessly. "I found the Trans-world, and it was the only way. Now my car has stalled and I don't know what to do."

Other drivers were clustering around, muttering angrily. One of them, a Three-country freight driver, stepped forward.

"Let's get the lady's wheelbarrow off the road, boys," he shouted. A half dozen huskys gave him a hand. Lawson helped them.

"We'll tell someone to come back and give you a hand," he told her, not unkindly.

Transport Six nosed ahead again, swiftly. The warning signal released, a caravan of trucks followed at a safe distance from the load of dyno-glyc.

"Funny," Arrow said, "that woman getting on the highway like that."

"You're wonderful," Eve's voice cut like a knife. "When I first saw that car, the woman was crouching in the ditch. She saw I would stop in time, so she ran across the open space and made up a nice little story to tell us. I think she realized she'd never be able to get away before we found her, so she took a chance. That explains the phoney story and all the dirt on her clothes."

"It *could* be your imagination," he said.

"Not with what I know about women," Eve answered. "If they get lost in the middle of the night, they don't get out of the car and go wandering around in the underbrush tearing their clothing and slopping mud all over themselves."

"Guess you're right," he admitted.

"That," Eve grinned at him defiantly, "Is why I wanted to be along tonight. You don't seem to think very straight at times, and I'm glad I'm here to help you out."

Lips tight in anger, he turned to the business of guiding the transport and was silent.

THE Meteor oil field was a flaming holocaust. Mushrooming out over West Station, black smoke covered the entire country side. The roaring flames could be heard for miles. Viewed from the cab of Transport Six the fire was awe-inspiring.

In spite of himself, Arrow felt a surge of pride as he realized the trailer behind them carried the agent that would conquer this burning hell of oil.

They were both at the controls now, tired out with the events of the long night. The first traffic zones appeared. Lights were flashing on all sides. The sky patrol was out in full force, patrolling the traffic lane under the leadership of Ken Barnes. All cross traffic had been halted to let Transport Six pass. The atmosphere within the cab was strained to the breaking point. Eve, her body and mind exhausted, was still ready to fight. She refused to speak with Lawson, and he had no choice but to ignore her.

Suddenly Barnes flashed down from the main body of patrol ships and hovered over them.

Arrow switched on the teloscreen. Ken's voice was droning on, endlessly giving instructions.

"Transport Six proceed to Five Mile Point. Cycles will take your load. All traffic entering highway has stopped. You have clear road. No entrance switches open until further notice . . ."

He trailed off, darting ahead in the sky bug like a swift water beetle. Then

he was back again.

"Change instructions—heat growing more intense. Stop at Six Mile Point. That is all . . ."

Even as he finished, a squad of cycles cut in behind them with a roar and spread out on either side of the speeding transport.

Fifteen Mile Point—

Eve locked her wheel and watched the curious strained faces of the drivers who were waiting for the dangerous load to pass. Every diesel driver in the country knew about Lawson's run with the dyno-glyc. They were holding their breath as the great truck careened by them on the last lap of the long journey against time.

Ten Mile Point.

Arrow started to press gently on the brakes, gradually increasing the pressure as the transport slowed. Nine-eight-seven . . . A gang of workmen was waiting as the truck halted. Handling the explosive as though in a nursery, they packed it into the cycles, which sped away toward the fire. They were carefully spaced, so that one accident would not destroy the entire load of precious glyc.

The foreman, a scarred-faced, middle-aged man, bronzed with the hard, outdoor life, came forward and took Arrow's hand. His other arm went affectionately around Eve's shoulder.

"Guess I'll be going in, now," he said. "Just thought I'd thank you both for a swell job. You know," his eyes softened for a moment, "This is the toughest blaze I've ever come up against. When I go in this morning, I'll be thinking a lot about the two drivers who made my fight possible."

He turned quickly, and walked away toward the last cycle.

ARROW spoke without looking away from his retreating figure.

"A swell fellow. He wouldn't be so proud of us, if he knew *how* well we work together, would he, *sweetheart?*"

Eve turned away toward the truck.

"Are you going in to the terminal?" she asked tightly.

"Go ahead," he called after her. "Ken will drop me off."

The truck roared into high, and swished past him so close that he stepped back to avoid its wheels. Ken had landed and was standing at his side.

"What's burning *her* up?" the scout asked.

"I'm not half as worried about her," Lawson answered, "As I am about the next driver who tries to bring a truck through on the Trans-world."

"Right now," Ken said, "you need rest. Let me drop you off at the Transport Club. Sleep for twenty-four hours, then you can tackle the other problem."

Arrow nodded.

"And in twenty-four hours, I'll be right back where I started from. I'll *still* be fighting something I know nothing about."

He felt better when Ken had landed the Sky Bug on top of the roof of the Transport Club. The hands of a kindly attendant had already removed his grimy driving suit.

"Give this guy a bed, and tie him to it for a while," Barnes told the attendant. "He needs rest."

The man chuckled.

"Guess he's earned it," he said. He shook Lawson's hand warmly. "The boys have heard about the fine run you and Miss Blackson made, sir. We're mighty proud of you both."

Lawson followed him down the long flight of steps to the club lobby.

* * *

EVE was feeling much better. Slipping out of the bath, she drew the

semi-transparent folds of the electric heat-coat about her freshly perfumed body. The soothing current penetrated her skin, relaxing all the tiny, exhausted muscles of her silken back and arms. For the millionth time she thanked Daddy Blackson silently for building this little hideaway atop the terminal at West Station. The apartment was her one retreat from the careening transports and their sweaty, masculine drivers. She whirled swiftly before the big three-dimensional mirror and was quite satisfied with the image of herself.

Somewhere a door clicked loudly. It was the private entrance her father had built to the apartment. She stood stiff with alarm. A footstep sounded in the small back room. She walked smoothly, silently, like a tigress toward the sound. In the doorway she collided with a stout gentleman who was making a bold entrance to her little haven.

"Who . . .?" she managed to stammer.

"I *beg* your pardon, Miss Blackson," the stout one said, adjusting his clothing after the accident. "You *are* Eve Blackson, are you not?"

"It's none of your business who I am. Whoever *you* are, get out before I ring the alarm."

By now the over-weighted, baldheaded one had regained his composure.

"Don't be hasty," he dipped his shoulders in a courtly bow, looking very foolish in his attempt to appear humble. "I have a message from Mr. Lawson."

"I might *know* it would be him," she said. "What is it and then get out."

"One at a time, in their proper sequence." He drew a card from the pocket of the badly creased gray trousers and held it for her to read. "A *very* nasty dispatcher you have downstairs," he said.

She glanced at the card. JOHN CHESTERTON, TRANSPORT CLUB. A little more at ease now, she smiled at his ruddy, excited face. Dispatch had evidently questioned his entrance a bit roughly.

"What does Lawson want?"

"Mr. Lawson send his regards, and asks that you drive back to East Station alone. He plans to stay until the fire is under control."

A loud pounding sounded on the outer door.

"Eve, are you all right?"

Dispatch sounded very out of sorts.

She pushed the door open and Dispatch stood there, anger written in hard lines on his browned face. With one hand he nursed a bulging head as he glared at Chesterton with murder in his eye.

"You'd better go now," she turned to the bearer of the message. "I won't vouch for your safety here much longer."

"I *did* hit him a rather nasty crack on the head," Chesterton admitted, making a hurried exit. Outside Dispatch evidently went into action. Eve slipped out of the robe. Why did Lawson always have to let her down? Ken didn't seem the type to pull a dirty trick like this on any girl, much less on her. She decided to waste no time in putting miles between herself and the man who loved fires so much he was willing to let her take a chance alone on the highway.

* * *

AT SEVEN thirty, Arrow emerged from his room at the Transport Club, dressed in a fresh driver's outfit. He ate at the counter in the small lunch room, then entered the teloscreen booth. The closing door established contact with the operator.

"Station Please."

"Trans-American office, zone one," he directed.

Parts of screen pictures flashed before him. Then Dispatch appeared, a sour grin on his face.

"Hello, my pretty one," he greeted Lawson. "So you ain't fightin' fires after all?"

"Let me speak to Eve." Arrow wondered what had come over Dispatch.

The man studied him carefully for a minute.

"You'll have a tough time doing that, after sending her back to East Station alone."

"Sending her?" Arrow's face turned white. "Get this straight. I haven't sent Eve anywhere. If she's headed for home, you'd better have a transport ready to roll when I get there, or I'll scuttle you."

He slammed the door of the booth and rushed from the lobby.

Lawson was there before Dispatch could finish refueling. With the last of the oil draining in to the tank, he heard the whole story of Chesterton from Dispatch's willing lips. Eve was somewhere between West Station and Half-way, thinking that Lawson had willingly sent her out to death and even worse. He yanked the hose from the truck and sprang behind the controls.

For the second time that night a huge empty transport leaped from the yard of Trans-American's West Terminal and gained speed like a cumbersome hippo up the long ramp to Translucent Highway. With the truck out of sight, Dispatch went to the teloscreen and established contact with Riley Blackson at East Station.

HOPING the girl hadn't gained too much of a start, Arrow fed the transport all the fuel it could gulp down. Topping a rise on the prairie he spotted another truck just ahead. Could it be Eve? With the tail gate in sight, he could make out the words splashed across it. THREE-COUNTRY FREIGHT. This was the outfit at whose feet Riley Blackson was laying the blame for all his troubles. Why should Three-Country be pushing a dead head across country tonight, with every dock on the west coast overflowing with merchandise? He could tell from the sway of the truck it was empty. Follow the fellow for a few hundred miles and see what's up? That was the idea. He stepped hard on the fuel control and caught up.

After a few minutes the truck ahead started to act queerly. With each burst of speed, he could see the other driver increase his own as though to pull away. Racing on Trans-world was bad business. He sped on, keeping just behind Three-Country. It was speedily becoming a situation entirely unfunny to Arrow's latent sense of humor. The diesel roared wildly as he looked at the dial. Two hundred and seventy; seventy-five; two hundred eighty m.p.h. Well over the speed limit on normal runs, and yet he had to go faster to keep those vanishing tail lights in sight. At three hundred he had given the transport all it would take. The wheels sang like maddened hornets and every fiber of the big trailer groaned and twisted behind him. Something was bound to snap at this speed. He kept his foot tight to the floor and clung to the controls. Sweat beaded on his chin and dripped from the end of his nose. Then, with his eyes stuck to the lights ahead he realized the other driver had cracked.

The truck, barely visible through the heated, fogged glass seemed to double up like a jack rabbit and jump from the highway. The driver was making a desperate attempt to right it, as the

red, warning flash of the road bed spelled disaster. Three-Country, whoever he might be, had jerked too hard on the pressure brakes. Hitting the road shoulder, the truck staggered, jumped high in the air and toppled end over end into a field. Flames burst from it, and Lawson, working with his own brakes, saw the mass fall like a slaughtered animal in the open farm land.

The transport under control, he stopped far down the road, and backed to where Three-Country had left the traffic lane. The body of the driver had been thrown clear of the wreckage. Crushed to a pulpy mess, it lay twisted completely around a big fence post. He walked toward it, knowing there was no hurry. The head of the corpse, large and bald, had been flattened and crushed by the impact. Turning away, Lawson saw a slip of paper projecting from the coat pocket. Steeling himself against the sight he bent over and drew the blood-soaked note from the coat. A card fell from his fingers and floated to the earth. He picked it up and read, *John Chesterton, Transport Club.*

* * *

SINCE Eve had left the freight yard at West Station, the strange feeling of impending disaster had clung over her. Something had been strangely familiar about the face of the man, John Chesterton; a face that she had seen somewhere before. Perhaps another, but like it in a manner that gave her the creeps. With Transport Six well out of the last protection zone she began to watch the Trans-world closely.

It was funny about Lawson. He wasn't usually *that* much of a heel. Perhaps she'd have better waited to hear from Lawson himself. Then high above her, Eve saw for the first time, the speck of a patrol ship that dogged her speeding truck. She switched on the teloscreen.

"That you, Ken?"

"Hello Jinx," Barnes answered promptly. "I had a hunch you'd be trying something smart. Reported back to Half-way, got bored with the wine and women, and what not, so here I am again."

"Arrow didn't like my company," Eve pouted a little. "So I'm just going home alone. Brave, aren't I?"

"Like the sweet dope you are," Ken shot back. "You'd better go back and wait for your boy friend."

"No can do," her voice hardened. "I'm heading for Dad Blackson, and fast, too."

She switched the screen off as Ken started to lecture. It would be no use to go limping back to Lawson with a thorn in her heart. He'd laugh at her, coming west again like a whipped puppy dog.

Once, a long time after she talked with Ken, she saw the bug again, winging along ahead of her. If it could only be Arrow up there watching out for her safety. She decided the lanky truck cow-boy was the most good for nothing man she'd ever bothered to fight with.

Half-way station loomed ahead with its magnificent luminous towers reaching upward from the flat countryside. Shaft upon shaft of multi-colored glassine buildings reaching toward the heavens. The haven of rest and amusement broke in two the long night drive from West to East Station. She cut the fuel and switched off all three motors.

DRIFTING as through a cloud, Transport Six silently coasted on the smooth highway into the heart of the rainbow city. Turning from the

traffic lane she let it follow the mechanically controlled line of flashing "spot signals" down a maze of parking ramps and into its stall. Robot brakes eased Six to a halt and locked the wheel securely.

Easing her bone-tired body into a comfortable counter chair Eve watched the assortment of foods pass her on the conveyor. Coffee and sinkers, the old standby. She inserted the proper coins into the counter slot and released the steaming Java. With hot food inside, she felt better. Resting, she brooded over the strange Mr. Chesterton once more. More and more it seemed odd that Arrow would send a messenger, and not come to her himself. Half rising, she decided to call him on the telo. Then she slumped down again, picturing him grinning at her fears. Once before they had safely driven through that crazy magnetic field of death. She could do it again. The road ahead seemed to draw her. If there was to be a fight, get it over with.

Shrugging her shoulders decisively she arose. The odor of hot food followed her into the night air. Then, away from the warmth and security of the building her old fears multiplied. Tossing her head almost savagely, Eve strode straight to Transport Six.

* * *

LAWSON hadn't thought about Eve stopping at Half-way. Realizing the girl would be wild with anger, he felt that she would roll straight on to East Station, and home, without a stop.

Now, just east of the throbbing color of Half-way Station he was giving the truck all it could handle. Eve, pulling onto the highway a scant fifteen minutes behind him, gripped the wheel and settled down for the test, should it come.

The blood-soaked note on Chesterton'h body told Lawson a lot of things he'd been wanting to know. If he couldn't overtake the girl very soon now, he might live to regret the day he'd *ever* see her face again.

He knew it was Ken before he switched the screen on. The way that little bug came flashing down from the eastern sky told him that no one but Barnes would be at the controls. Ken seemed surprised to find Lawson in this truck.

"Hi, Cowboy," the scout greeted him. "Thought you were sleeping it off back at West Station. I had a lead on Eve. Guess she must have stopped off at Half-way. Came back to pick her up."

Arrow sighed in relief.

"That's the best news I've heard tonight," he said.

Ken grinned.

"Don't worry about *that* little girl, at least not as long as I'm around."

Lawson had slowed the diesel down, idling along under Ken's plane.

"Think I should drop back and find her?" he questioned.

"Might have a tough time getting near her the way she feels right now."

"Guess you're right," Arrow gunned the transport again. "I'll keep my eyes open, and you help Eve along, will you?"

"Right."

The telo went dark, and Lawson watched the bug turn off and slip behind.

The Trans-world pleasant at any other time, held a horror tonight that he'd have to face alone. The fact that he knew what might happen didn't make death seem any more pleasant.

There's a way of rolling a truck into the ditch, his mind pounded out. A way of tipping it over so the tractor will ride clear of the crushing weight be-

hind. Perhaps a cool head and strong arms will do it. Perhaps—

WHEN the hell crashed in upon him, his mind worked like a smoothly ticking watch. With nerves turned to ice he carefully nursed the small dyno-glyc bomb on the cushion at his side. *Pull out the firing pin and compressed hell will bust wide open.*

At first the electro current hit the tractor gently like the sound of two live wires sputtering against each other. Increasing steadily the thing, whatever it was, seemed to come closer within range. Slowing down as much as he dared, Lawson drove steadily ahead, resisting the urge to leave the highway. To escape. That would save him once more, and leave the others to go on dying in vain. He clung grimly to the controls, rolling straight down the highway. The prickly, burning heat filled the cab and pulled at his hair. His head began to buzz wildly under the pressure. From the corner of his eye he watched the metalode antenna as it straightened out toward the edge of the highway. *Hold on.* He kept whispering it over and over, brushing the sweat from his eyes. *Hold on for a minute, two minutes more.*

The center of disturbance must be very close. His breath jerked out of him with difficulty, arms turned to lead against the wheel.

NOW!

His right arm pulled gently against the wheel, and the truck bounced from the highway. A red flash of the highway signal and he was tearing down a long, sharp incline toward the deep ditch. Pushing the door with his foot, he stepped to the running board, holding the glyc bomb in his right hand, the wheel with his left. Hanging there for seconds, he knew the time was near. He gripped the firing pin in his teeth and pulled savagely, at the same time twisting the wheel quickly under his hand.

With all the strength he could muster Lawson leaped headlong into the darkness. His legs like long pistons carried him clear of the cab as it skidded sidewise on the hard gravel. Panting and half dead with pain, he felt rather than saw, the big trailer roll by, missing his body by inches. Hugging the dirt, his arm and legs shredded painfully by the sharp stones, he saw the truck hit the bottom of the incline. Then a great flare of orange light lashed over him, the explosion deadening his ears.

The transport seemed to lift up, parts of it flying high in the air, then settle down again. A sigh escaped his lips as the darkness settled in. Somewhere on the ridge behind him a twig snapped. The highway was deserted, and laying stretched on the side of the hard bank he wondered dully if the scene had been convincing.

* * *

THREE people saw the explosion against the night sky. Eve Blackson, hurtling east, shuddered as the flash of light covered the highway ahead. Ken, above her, knew who was in the wrecked truck. His face didn't betray him as he switched on the teloscreen.

"Turn that crate around," he shouted at the girl. "Get back to Half-way, and wait. I'm going up and find out what happened."

"You know darn well what happened," Eve's lips were white. "I'm going along for the ride."

Ken swore loudly.

"Eve," he pleaded, "I can't be responsible any longer. "I'm doing my best to keep you out of a jam. Now, turn back."

He was talking to a dead screen. Eve was already far ahead.

ON the little oak ridge, just above the spot where Lawson had cracked up, stood the third interested party. The woman looked just as bedraggled as she had the night before when Trans-world drivers had pushed her plasti-coupe from the highway. The coat, covered with dried mud flapped around her gaunt frame with a scarecrow attitude of disinterest. Her face was chalky with determination as she studied the road toward the west.

Bony hands clutched a queer, box-like contraption close to her breast. Not unlike a huge aerial camera, it had a large glassine lens pointing away from her body, crossed hair lines etched across its surface. She held the box to her body with two large handles, a trigger release buried under her right finger.

She looked down for an instant at the smouldering ruins of the wrecked truck, then studied the highway once more. Her ears had picked up the hum of Transport Six coming over the divide a few miles away. Over the oncoming truck, hanging high in air, a tiny flare, red as a drop of blood, flickered then died.

She lifted the box higher and inside it, tiny motors begans to hum softly. Six had dipped down a slope in the Trans-world and roared onward toward her hiding place. She aimed down the length of the machine and sighted the crossed hairs on the barrel sight.

The metalode antenna on the truck cab was plainly visible in the sight.

Something crushed down on her head, and a blinding stab of light raced through her brain. The box dropped to the ground and the woman sagged slowly and went limp among the damp leaves. Transport Six flashed past.

Lawson stepped back and tossed the huge cudgel from him in disgust. With his foot he rolled the woman over on her back. There was something unclean about her, like a rattlesnake crushed under a farmer's boot.

Six was slowing. Evidently Eve had seen the still burning truck, and stopped as soon as she could apply the full force of the brakes. He stood on the ridge, listening as the truck went into reverse and rolled back along the side of the road. It was the sky bug that demanded his attention, He watched another flare drop from it, and smiled softly as still another dripped red against the low clouds.

Eve had stopped now, and he heard her plainly as she cried out. The Trans-American insignia was still visible on its crushed side. Her feet slid down the gravel bank. The woman on the ground stirred and sat up feebly. A string of soft oaths escaped her lips.

"You dirty skunk," she muttered, glaring at him. "Hitting a lady with a club."

The footsteps below them stopped abruptly. Eve must have heard the sound.

"I wouldn't use anything *but* a club on a snake." He almost whispered it, in his hatred for her. "Get up." The words cut from his lips like the raw edge of a saw.

He bent over and grasped the magnetizing machine with one hand.

"Start walking," Lawson motioned toward the road.

"Eve," he shouted, his voice rocketing back and forth across the quiet woodland. "It's me, Arrow. Get back to the truck and wait. Ken's coming down."

The sky bug had nosed toward them swiftly. Ken would meet them on the highway.

Eve's voice floated back, all the fear and horror gone from it.

"Arrow," she called, "are you all right?"

It seemed the most natural thing in

the world, after the terrors of the all night run, to find him here and to be glad he was safe.

THEY made a strange party, huddled ill at ease beside the great cross-nation truck. Lawson was still covered with the blood and dirt from his terrific fall from the truck. The woman of the plasticoupe stood to one side, her head hanging dejectedly, like a sulky child. Now and then her eyes darted from one side to the other, seeking an avenue of escape. Ken was having trouble trying to contact East Station on the truck's teloscreen.

"East Station— Calling East Station," he repeated over and over to the dead screen. Traffic had stopped on the highway. Many drivers on the run east had seen the explosion from Halfway station. They weren't anxious to follow. Ken's hands searched the controls of the telo.

"Try the screen in the sky bug," Arrow suggested.

"No good," Ken answered laconically. "It runs on the engine fuel. Tanks went dry as I landed."

The woman had waited patiently, sliding inch by inch toward the outer circle of the group. Suddenly a tiny nitro pistol flashed into her hand. She waved it hysterically.

"Run for it, Barnes," she shouted. "It's been a good show, but you'll never get through it."

Ken turned with an odd look of surprise. Then, with Arrow staring at him, he smiled. His features slightly reddened, he relaxed once more against the cushions of the seat.

"She's not only crazy," he said, "but she's got us in a hellish spot."

Lawson ignored him, turning with pin point eyes to the woman. He moved toward her slowly, his body stretching smoothly, stealthily, as though approaching a cobra.

"Stand back," the pistol poked at him savagely. "I'll blow that frame of yours to the moon."

Eve dashed between them, throwing herself against Arrow chest. Pressing her body close to his she looked up into Lawson's determined eyes.

"Leave her alone, darling," she pleaded. "She'll kill us all if you don't."

His gaze dropped to hers, and his heart skipped a beat at what he saw there. Then he looked away.

"You told Ken Barnes to run for it," he asked the woman. "What did you mean?"

EVE stepped back. The new hardness in his voice puzzled her. She was searching for something—anything to cling to.

The gun wavered a bit.

"Nothin'," the woman stammered. "Nothin', only I—"

Lawson forced her hand.

"Are you trying to get him out of this mess, now that your brothers failed to show up?"

Ken stood up abruptly. He walked away from the truck and behind the protection of the wavering nitro gun.

"Give up the ghost, Lawson," his voice had gone harsh, bitter. "What do you know about her brother."

A look of fright had crept over his handsome face.

Eve, wide-eyed at this turn of events, pressed her body against the smooth protection of the truck's side.

"Nothing much," Arrow said. "I found his body wrapped around a fence post back on the west run. There was a paper in his pocket that set me straight on a lot of things." The words came slowly, as he sought the effect of them on the faces of the pair before him.

The gun dropped with a thud by the

roadside, and the woman started to cry softly. Arrow sprang for it, but too late. Ken beat him to the weapon, kicking Arrow a wicked blow on the shoulder with his heavy boot. Lawson fell back. The gun, steady this time, trained on his chest. Eve cried out, straining back as though to hide from these two facing each other with bursting hatred.

"Now, stay there," Ken snarled, "or *I'll* blast you, and quick."

He turned toward Eve.

"Why *sweetheart,*" the words dripped sarcasm, "you're not disappointed with your hero of the sky patrol?"

She stared straight at him, disgust welling into her eyes.

"Lawson," Barnes spoke evenly, "you weren't so dense after all. So you found John Sargent and the devil's contract I signed with him!"

"John Sargent—or Chesterton." Arrow answered. "One and the same to me."

"Chesterton," Eve's astonished voice broke in. "Why, he's the man—"

"Yes," Arrow walked to her, putting an arm about her slim waist. "The man who sent you out to die. Sargent, owner of Three-Country Freight, and part owner of Ken Barnes' life."

FOR a minute Barnes seemed to soften as he watched them.

"You're right," his voice was tired. "Sargent and this no-good sister of his had me on the spot. Years ago I bought stock in the outfit. They were going broke. I was going to lose every cent I had. They made me a part of this scheme to get Trans-American's business. My part was easy. This miserable excuse for a human being," he looked at Sargent's sister, weeping miserably with the news of her brother's death, "did the dirty work. Sargent developed the magnetic gun, and spotted your trucks as they left East Station. I picked them up on the highway and dropped a warning flare when they approached her hiding place. She did the rest of it."

He paused, making sure the gun was still trained on Lawson's body, then continued. "After the first time, I realized I was a murderer. After that it was too late to back out. They had me hooked."

"Which makes good talking," Lawson cut in, "but what are we going to do about it?"

"That's the hard part to decide." Ken relaxed a bit with the story off his mind, and grinned at his old friend. "I've always liked you two. As for Eve, if things had been different—"

"Leave Eve out of this."

"Okay," Ken agreed. "But I *do* like you. I hate like the devil to kill you unless it's necessary. The sky bug is dry. Give me fifteen minutes start in the transport, and you don't have much choice, and I'll cut off into strange country where you'll never see me again. Agreed?"

Arrow looked down at the girl clinging to him.

"We haven't a thing to say about it," she said, quietly.

"So, that's that."

Ken climbed quickly into the cab of Six, then saw the woman, her eyes pleading with him for escape.

"Come on," he said, disgustedly. "I might as well take my misery with me."

Transport Six caught the fuel eagerly, lunging forward on the highway. Standing close together they watched it carry from them what had been the ideal man. Eve's lips parted slightly, her mind seemingly undergoing a terrific strain.

"I'm afraid," she said, clutching his big hand.

"Of what?" He took her in his arms, pushing her small chin up with a firm finger. "Somehow, I guess Ken will get the pay-off when the time catches up with him."

A shudder coursed through her small body. They listened to the roar of the diesel as it topped a distant hill.

THE sound floated back to them through the clear air, louder and louder as Six gathered momentum. Transport Six had reached its maximum speed when the explosion came. A great flash of orange light swept high in the air. The top of the world flew off. All that remained of the big truck shuddered apart and blundered its way into the ditch. Ripped apart by the blast, it toppled into a pitiful heap at the side of Trans-world.

Eve buried her head in the smoothness of Lawson's tunic and sobbed. For an instant his eyes widened with amazement. Hadn't they, after all, found the thing that had wrecked Trans-American's trucks? Then he looked at her face, and realized. Pushing her away at an arm's length he stared admiringly.

She brushed the tears from her face.

"It was terrible," she said. "But last night I made up my mind to help you somehow. When Ken was talking with you I backed against the antenna."

From her pocket she drew the small wrench he had used on the west bound trip.

"It wasn't much of a trick to bend the antenna away from ground contact with this," she said simply. "I hope it makes up for some of the terrible things I've said to you."

Lawson didn't answer at once. His lips were busy finding something that had troubled him from the first. Yes! Eve could be a firebrand of affection when she wanted to be.

Under their feet the highway had once more flashed its warning. He wondered vaguely if the red plastic was glowing because of the accident ahead, or did Eve's torrid lips have something to do with the blushing scarlet of Translucent Trans-world.

The End

THE OLDEST STEEL WEAPON

By MAURICE J. STEELE

THE oldest steel weapon in the world has been unearthed in Syria by the French Archaeological Expedition to Ras Shamra. This interesting weapon, a battle-axe, is judged to have been made by expert munitions makers of about 1500 B. C.

Dr. Claude F. A. Schaeffer, director of the expedition, praised the technical skill of the makers of the battle-axe, attributing the credit to Mitannians from the Euphrates, who were at their time unsurpassable militarists

The axe blade is of iron put through steel-making processes. The ancient Near East achieved a primitive kind of steel by shaping the iron blade, then heating and plunging it into cold water. This method was used long before modern steel makers began to melt iron to harden it by sudden cooling.

A beautifully ornamented bronze socket fastened the iron axe blade to the handle. Two cleverly designed lion heads and a wild boar are the decorations. No rivets were necessary because the socket was shrunk on to the blade.

Mitannians are given credit for great skill in horse breeding, and they developed the method of fighting in horse-drawn chariots.

The battle-axe was found in a sanctuary in the ruins at Ras Shamra. Dr. Schaeffer infers that military officers worshipped there since the adjoining building was a great riding hall and adjoining that was a grand stable. Many arrows and pieces of armor were found in the ashes covering the ruins, indicating that the building also served as an arsenal for the chariots.

Ras Shamra, in northern Syria, was the ancient city known as Ugarit. Inscriptions of great importance are among the discoveries. Deciphering the new script revealed evidence of the lost Canaanite literature, which explains the origin of many customs of the Hebrews in the Bible.

MERCURY—The Fire World

by WILLY LEY

Here is a scientific concept of the landscape of Mercury. It is a world of great heat and awful cold

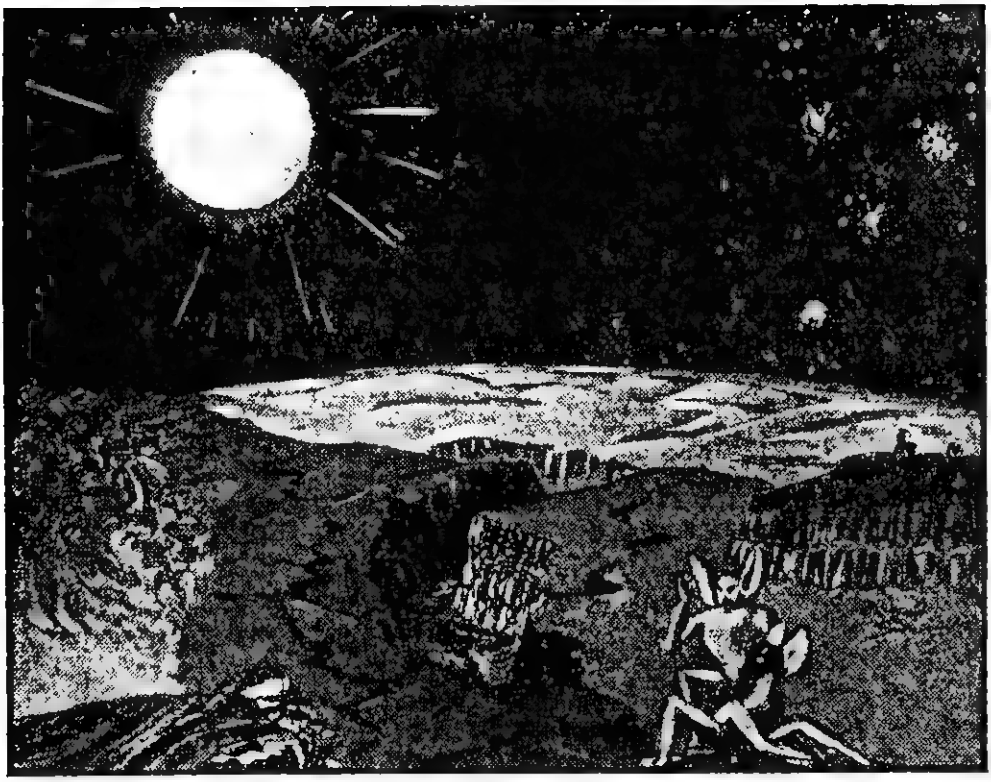
No. 5

IT IS true that Mercury is the smallest of the major planets as they are called since astronomers began to hunt for asteroids, or planetoids or minor planets. It is undeniably a fact that Mercury, placed among the four large moons of Jupiter, our own moon, Titan, largest moon of Saturn, and the single known moon of Neptune would not be very conspicuous for its size.

But that is not sufficient reason to treat Mercury as poorly in books as has become the habit of quite a number of authors. They often behave as if the chapter on Mercury were *the* place where space can be saved which is later devoted to the discussion of the pet theory of the author on the "canals" of Mars or the craters of the moon. Thus the chapter on Mercury is usually condensed to a brief summary saying that it is the first planet from the sun, revolving around it in a highly elliptical orbit which makes the distance vary from 28 to 45 million miles, that a full revolution is completed in about 88 days at an average speed of 30 miles per second, that the diameter of the planet is 3000 miles and that it has no moon. To which is added that recorded observations of Mercury go back to the year 260 B.C. that the Egyptians called Mercury *Sobku* "the rapid one," that the Greeks thought Mercury to be two planets and named it "Hermes" if it could be seen as evening star in Spring and "Apollo" if it appeared a morning star in Fall.

Incidentally, both these names have re-appeared in astronomy, both for asteroids inside the main asteroid belt. It is also reported that Nicholas Copernicus (whose real name was Nikolaus Koppernigk) complained that he had never seen the elusive little planet which is always hiding in the rays of the sun . . . which proves that Copernicus did not look so very hard for it because Mercury is bright enough. It is not hard to see, only rare.

These are the contents of the customary chapter on Mercury. If the author of the book is a follower of Einstein you'll find a footnote explaining that Mercury's orbit gave rise to the most important advance in science since Sir Isaac Newton "as will be discussed later in a more detailed form in the chapter on relativity." And if the author in question is not a "relativist" he'll probably remark that "the advancing of Mercury's perihelion has, so far, not found a satisfactory explanation." From which you can infer that Mercury's perihelion is slightly



The landscape of Mercury would be a bleak scene, full of crevices, heat-tortured rocks, sand, and absolutely no vegetation except on the twilight zone. The sun would appear to be a huge thing, four times the diameter it appears to be on Earth. Heat would be terrific

misbehaving, advancing in a manner not quite conforming to the laws established by Kepler and Newton.

IT was this peculiarity that once gave rise to a planet between Mercury and the Sun. It was named Vulcan before it was actually discovered and it seems that "Vulcan" decided in a somewhat spiteful manner either to elude discovery or not to exist at all.

The psychological situation around the middle of the last century was such that the invention of an "intra-Mercury" was an obvious procedure. Neptune had just been discovered by mathematical treatment of the irregularities of Uranus' orbit. Naturally the irregularities of Mercury's orbit led to the conclusion that here, again, an unknown planet caused them. And that it should be probable to discover this planet in the same manner that had proved so successful in the case of Neptune.

Leverrier, one of the two mathematical discoverers of Neptune started work on this new problem. And soon he received a letter from one Monsieur Lescarbault in a small town "somewhere in France" that he had seen the unknown planet "in transit" (which means: moving across the disc of the sun) on the 26th of March 1859.

Leverrier thought this letter important enough to visit Lescarbault and after a cross-examination during which Leverrier behaved as if he were the Grand Inquisitor and Lescarbault a heretic of the worst kind, he was con-

vinced that Lescarbault had spoken truthfully. Leverrier even saw to it that Lescarbault was decorated with the coveted red ribbon of the *Legion d' honneur.*

But nobody ever saw "Vulcan" again although more or less competent astronomers reported its "discovery" about twenty times between the year of Lescarbault's report and the year 1900. In most cases the error could be traced. One German observer in China had seen a round sun spot, his telescope was too small to reveal its true nature. American observers had been fooled by small reddish stars in the constellation Cancer that became visible during the total eclipse of 1878. And others may have had glimpses of some of the small asteroids now known, without guessing that they were not between Mercury and the sun but close to Earth.

At any event competent astronomers do not believe in the existence of Vulcan anymore and are looking for other factors that might explain the discrepancies between the calculated and the actual orbit of Mercury.

WHEN Mercury itself is in transit across the sun it reveals that it does not possess a noticeable atmosphere. While Venus, when just entering the disc of the sun shows a ring of faint light all around Mercury looks just black, its atmosphere must, therefore, be much lower both in density and in height than that of Venus. This does not mean, of course, that Mercury cannot possess an atmosphere at all, it only means that there is much less of it than on Venus. In fact the question of the atmosphere, or better the question of an atmosphere, is the one that is and has always been most vividly discussed.

Astronomers agree completely now on the question of rotation. Mercury completes one rotation around its axis in the same amount of time as one rotation around the sun which means that it has a permanent sunward side and a nightside. The one who first announced this was Giovanni Schiaparelli of Mars-fame and it has been verified time and again by many observers.

But even this does not mean that the position of the sun in Mercury's sky is completely unchanging. A strange kind of seasonal change results from the elliptical orbit of Mercury, an observer on that planet would see the sun swell from four times to about seven times its usual size (as seen from Earth) during the 44 days between aphelion and perihelion.

Now Mercury's speed at aphelion is only 24 miles per second, which is to say that the orbital speed of the planet shows considerable variations, while the speed of rotation around its axis remains always the same. The result is a libratory swing of the planet so that for a wide belt separating the light from the dark hemisphere there is a period each year * where the sun rises above the horizon, hovers for a while and then disappears again.

While the agreement of the experts on all this is complete, the quest for an atmosphere is less simple and less unanimous. The theoretical considerations are severe. There exist hard and fast rules that prove conclusively, for example, that hydrogen gas could not exist on our moon. The molecules of gases are in constant movement, their speed depending on the nature of a gas and on its temperature.

In hydrogen—quoting from one of the books by Svante Arrhenius—"the velocity amounts to 1.84 kilometers (1.15 miles) per second at zero centi-

* "Year" means Mercury's year, of course, the 88 day period needed to complete a full orbital revolution.—Ed.

grade (32° F.). The parts of the moon exposed to the strongest sunlight are heated to about 150° centigrade (300° F.). At that temperature the average velocity of hydrogen molecules is 2.29 km (1.43 miles) per second." The velocity of escape on the moon is less than that—about 1¼ miles per second —it is obvious that the moon could not retain hydrogen molecules during the warmest period of its day. And those that failed to escape today will do so tomorrow.

The molecular velocity of helium under the same conditions would be just 15/100ths of a mile less than escape velocity. But these molecular velocities are *average* velocities, some molecules would be fast enough to escape, and tomorrow again some would be fast enough and so on until none are left.

MERCURY is larger than the moon, its escape velocity is roughly 1½ times that of the moon. But it gets much hotter there and if we assume that the temperature rises to 400° centigrade in certain parts—as it undoubtedly does—the gas molecules move 1.26 times as fast as in those examples given by Arrhenius. While the light gases would not be lost rapidly they would certainly be lost slowly and we are safe in assuming that they are lost already. It is different with the heavier gases, oxygen, nitrogen and carbon dioxide, especially the latter which is notoriously heavy. They would still be on Mercury, or at least most of them. But where would they be?

One of those laws states that "if a world possesses an area of sufficient size where conditions are permanently such that a gas would condense to a fluid or a solid, all of that gas available will gradually assemble in that area." That sounds formidable and is perfectly logical too, and there is no doubt that Mercury possesses such an "area of sufficient size."

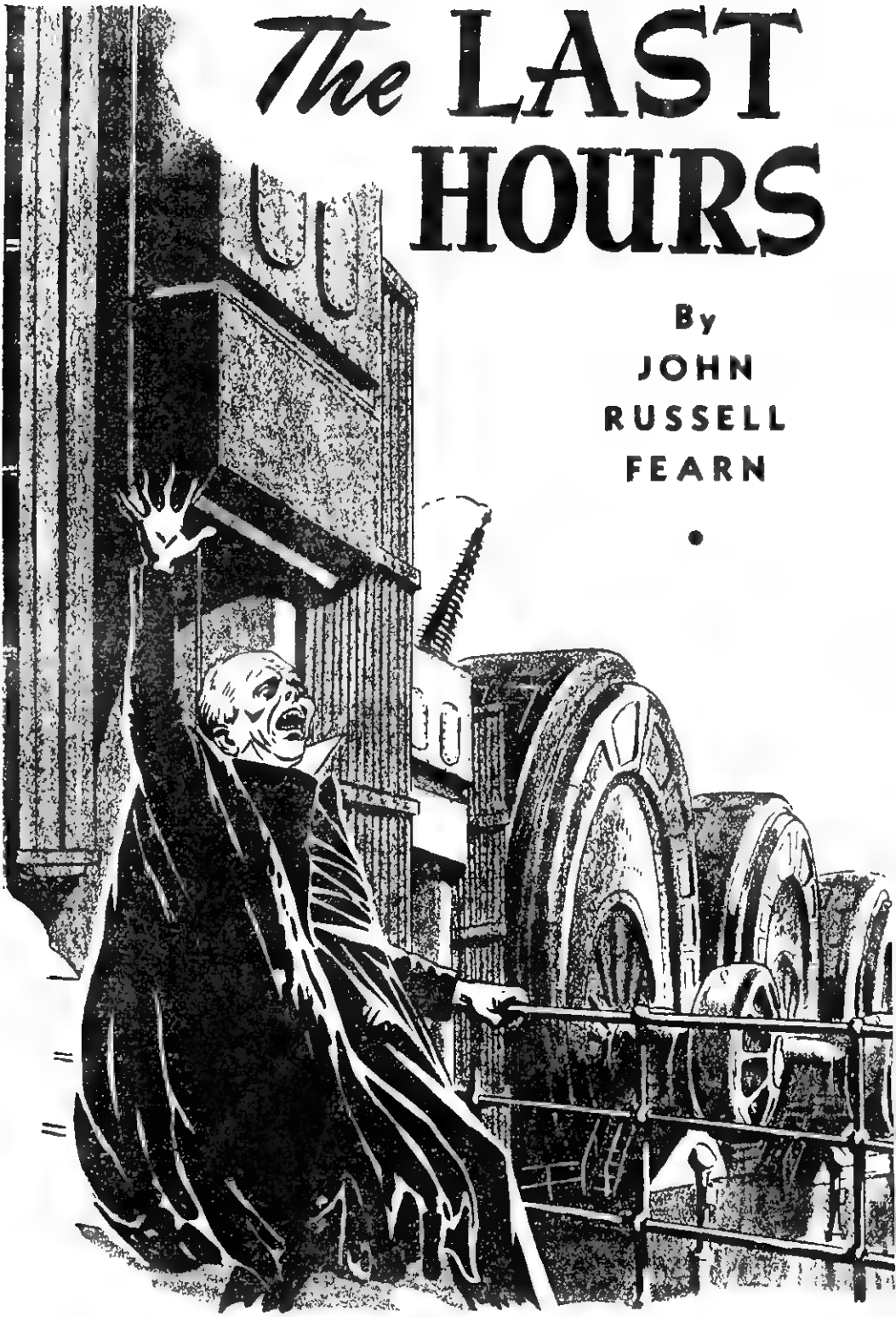
Still, there are a few "buts" left. This assembling of *all* the gases will certainly take a tremendously long time on a planet like Mercury where gases, as long as they are gases, carry heat from the hot side and the libratory belt to the dark side. Thus the area where a frozen gas would remain undisturbed shrinks considerably in size. And those gases that become only liquids and not solids under the given conditions—and nobody can be certain just exactly *how* cold this area is—may flow back into the belt which, though on the night side, is still "temperate."

The surface markings themselves are strange and meaningless. Slanting lines may indicate the outlines of former continents. And then there are lines running somewhat in the manner of the spokes of a wheel from the rim to the center of the day side. Are they canyons eaten into the rock by ancient rivers to a large natural depression in the equatorial section of the planet that later happened to become the center of the day side?

There are only a few things about which we can be certain. One, that most of the water and the gases are immobilized on the dark side. Second, that the day side is scorched by perpetual heat, four times that needed to boil water. And third, that there exists a wide libratory belt which represents all the intermediate temperatures between day side and night side. And we may add as probability that this belt still gets some atmospheric gases and possibly even some water vapor, enough to sustain the life of a primitive and hardy vegetation that had millions of years (our years) of time to adapt itself to the rigors of the "temperate zone" of the smallest of the major planets.

The LAST HOURS

By JOHN RUSSELL FEARN



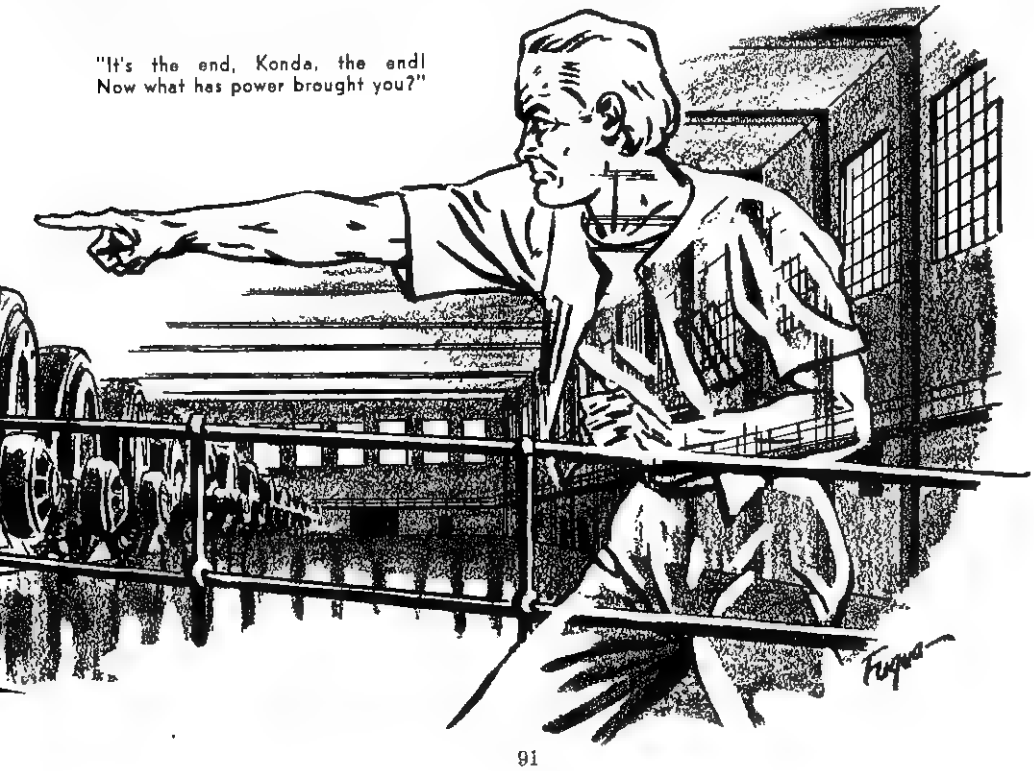
This new powerhouse controlled the energy of the sun—but it could not control its own power to destroy . . .

THE WORLD council edifice was packed to the doors. In every quarter of its acres of floor space, packed tight against every ebonoid pillar, were seated the representatives of every nation in the world. Hither had come the scientists, engineers, social workers, mathematicians — the whole living, breathing network of mentalities responsible for cohesion in this despot controlled world of 2240.

Bruce Lanning arrived late. The aerobus ways had been choked with craft all heading to the center of Governopolis. He pushed his way in at last between the mighty black doors, and his permit gave him immediate admission to his reserved seat. Astronomer Lanning was a valued member of the Governopolis Council . . . and Drayton Konda, the Master, knew it well. Perhaps—too well.

Lanning's keen gray eyes went over the sea of faces—white, yellow, and black. Men and women of every clime. Some rustled papers, others held silent electric recorders for personal use, others just sat and waited. It was the most impressive gathering Lanning had ever seen in his ten years as chief astronomer. Some knew why the meeting had been convened: others did not.

Lanning was one of those who did — and he had come to make a stand. The Master *dare* not . . . Then a hush fell



and the muttering died like a subsiding storm. A loudspeaker in the black cupola of roof gave forth the harsh impartial announcement so often heard throughout the world—

"Silence for the Master! Silence for He Who Rules!"

Automatically opened doors back of the immense rear dais permitted a figure to appear. There was not a soul in the Solar System who did not recognize him— Massive, well over six feet, ox-shouldered, heavy-necked, with a truly remarkable and almost perfectly round bald head. His brow went up in a straight line, curved over the top of his bald skull, then went down in a straight line at the back. Intellectual, unsentimental, stubborn . . .

As usual he was quietly dressed in the lounge suit of the time. In two strides he reached the main desk, flicked the microphone switch, and waited. The silence now was as of the void.

Far overhead winked the eyes of silent television cameras. Unseen rays were picking up his image and hurling it to the furthest reaches of the cosmos . . . Bruce Lanning smiled a little twistedly. Though from here he could not see the face clearly he knew it well enough. Hook-nosed, tight-lipped, square-jawed. Eyes as blue and cold as a glacier.

Drayton Konda had set himself out to master the world and the Solar System, and what was more important, he had done it. Whether for ill or for good nobody seemed to know: perhaps because nobody was permitted to say . . .

Then Konda spoke. His voice was hard-etched, biting, purposeful. He used no appellations such as "Friends" or "Ladies and Gentlemen—" Those false trimmings were in the limbo. He went straight to his subject . . .

"I have decided we need more power! Vast power! Endless power!"

Momentarily he looked around, lips tightly outthrust as though challenging a denial. None came. He went on talking icily.

"When I gained control of the Earth and Solar System I promised it should be for a definite purpose. It was. We cannot be confined to a mere Solar System with its boundaries ending at Pluto. All the neighbor planets are under the control of Earth—therefore I shall reach further. Outward, to Alpha Centauri, then to the furthest stars! But here on Earth there is not enough power for the construction of machines of war: not enough power to feed endless chains of factories. We have atomic force, we have the natural power of the Earth itself generated at the north magnetic pole— But more is needed! There remains only one more powerhouse to be tapped, the greatest of them all! The sun!"

There was a murmur at that, but the loudspeaker killed it.

"Silence while the Master speaks!"

Silence came. Bruce Lanning's gray eyes narrowed. Now it was coming, just as he had expected.

"The sun," Konda went on didactically, slamming the desk with his fist. "My solar engineers inform me that it is possible to erect a vast powerhouse for the sole purpose of utilizing the sun's surplus power. We all know that seventy-five percent of the sun's power is wasted: drawn to a focus by magnetism it can be used, transformed to feed our chains of factories. Our output can be tripled. In five years we shall be ready to launch the greatest attempt to conquer the universe within the great history of Mankind. War? No—conquest! For this purpose of erecting a giant magnetic power plant I have convened this meeting, so that

you can make the dispositions for the necessary labor. Engineers, you will submit plans of the intended powerhouse: labor chiefs, you will estimate the labor required: social workers, you will broadcast statements on the benefits that can accrue: mathematicians, you will work out the calculations: astronomers, you will determine the effects of this process—"

"I have done!"

BRUCE LANNING jumped up, his clear voice cutting across the Master's and echoing through the hall's vast reaches. There was dumbfounded silence. That one man should *dare* to interrupt He Who Rules. . . ! There was something awesome about it. The sight of the Master of the System standing perfectly still at his desk, domed spot of bald head turned to the solitary man in the wilderness of humanity, was unbelievably impressive.

Suddenly the automatic analyser gave forth a harsh announcement.

"The Interrupter is Bruce Lanning, First Astronomer to the Council of Governopolis. Guards, remove him!"

"Remove me if you will," Lanning cried, standing his ground, "but I am determined certain facts shall be known—"

"You have dared to interrupt He Who Rules," stated the Voice.

"And I will again when it is in the common interest!"

Gathering uproar, amazement, a desperate pulling at Lanning's coat tails by his nearest neighbors— Then the Master spoke.

"You may speak, Astronomer Lanning, provided it is in the interests of Governopolis . . . Continue."

"I submit, sir, that your scheme for harnessing solar power will bring more destruction than benefit. In my position as Astronomer to the Council I have known for some time of your intention to utilize the Sun's surplus power. Your scheme, as I see it, involves a system of magnetism between Earth and Sun, by which process you intend to draw—as indeed Earth itself draws already in a more diffuse form—the electrons and energy streams which would otherwise scatter in space. This vast surplus you intend to convert in your powerhouse and so supply your chains of lesser normal powerhouses. . . ."

"You are correct, Astronomer Lanning," the Master conceded calmly.

Lanning took a grip on himself. "Do this, and you will destroy the world! Firstly, your magnetism system will not only draw electronic streams, but also the brickbats and flying fragments forever hurtling about in space. On this earth will descend an incessant bombardment of incendiary material. Fires will break out! Hundreds of people will be killed. The extra amount of power gained will be counterbalanced by losses in labor and material."

Silence. That silence chilling to the nerves. The silence that came while the Master meditated.

"That will not be all!" Lanning shouted, and with a certain touch of desperation. "It is a well known fact that electrical storms and radio interference are entirely brought about by electronic activity from the Sun, worse at some periods than others. Increase the stream of electronic energy and the world will be blanketed by radio static: storms beyond imagination will lash the Earth . . . I repeat, Master, there are limits beyond which a man may not go. Do this one more thing to get a little extra power and— But I have said enough."

Lanning remained standing, strained and white-faced. The battering watchfulness of thousands of eyes was a tre-

mendous ordeal.

Then presently Drayton Konda spoke again.

"Your statement has been interesting, Astronomer Lanning, despite its variance with truth. You have overlooked that all the cities of the world, and Governopolis in particular, are fireproof and invasion proof. We need fear no attack from death rays or implements of war: therefore even less need we fear a pseudo-invasion in the form of brickbats and meteorites. Storms are possible, but of trifling consequence. Radio we can control by giant static eliminators . . . Taken in all, Astronomer Lanning, your comments may be summed up as a reactionary attempt to disturb this meeting."

Konda turned his head slightly. "You are instructed to strike out Astronomer Lanning's statements. No summary of them shall reach the outside world . . . And Lanning," the bald head moved back, "you will report to my office immediately after the convention."

"But sir, please listen—"

"Leave us," Konda said tonelessly.

"Astronomer Lanning, you are ordered to leave!" thundered the loudspeaker. "Guards, open the door . . ."

Lanning's shoulders drooped with the hopelessness of it. He knew—yes, and Drayton Konda *knew*—he was right. But if one man rules, and the one man is determined to have extra power no matter what the cost. . . ?

Lanning went out through the sea of people without another word, set-faced. The black doors closed soundlessly behind him . . .

ON THE vast colonnaded terrace outside the doors there was a scattering of people, mainly radio and press representatives. Gloomily, Lanning glanced at them seated against the black and gleaming walls, then he wandered to the balcony and gazed out over the city from this high elevation.

Preposterous city, Governopolis, with its mile-high towers of black ebonoid metal, its lacy bridges, its beacon towers, its streets infinities of distance below and picked out like serpents of smooth flickerless light. The quiet of the summer evening was upon Governopolis: there was no sound save the lazy hum of eternal power. The stars were sprinkling the serene and purpling heavens— Far away the Earth-Mars space liner nosed silently to rest . . . Peaceful. A Paradise . . .

No, a mask! A mask for ground out humanity under the heel of infinite science. Science in the hands of a man convinced of his own godlike power, a man to whom pity and human kindliness were unknown. Drayton Konda was the living blight that had destroyed, perhaps forever, all chance of a Golden Age . . .

"And so shall this insubstantial pageant fade," Lanning murmured, eyes on the crazy expanse.

"And leave not a wrack behind," whispered a soft voice close to his ear.

Lanning twirled, gazed into the eyes of a slender woman in a light Grecian-style gown. Her eyes were dark, human and warm, eyes that still had not become clouded by the eternal heel of oppression. The soft wind at these heights blew back the dark hair from her serene oval face.

"Eleanor, dearest, whatever are you doing here?" Lanning caught her slim hands. "You know the wives of representatives are not really allowed. . . ."

"No?" Her gaze slanted down the file of waiting people. "There are women there—wives too. They wait."

"But they are the wives of the Coun-

cil members. I am only an astronomer . . ."

"The First—and the greatest in the world," she said gently. "Konda or no Konda, that is the truth."

"Eleanor . . ." Lanning smiled a little ruefully: then his expression changed. "And take care what you say about Konda. The city is worm-eaten with pickup cells. One word against him and—"

The girl locked her arm in his and they returned to viewing the city.

"You said your piece?" she asked seriously.

"Yes, I said it." Lanning's jaws tightened. "I was told to leave."

"I expected it," she sighed. "One cannot expect a man like Konda, drunk with power, to care two hoots about warnings. That is one reason why the world is despot-controlled today. But you are right, Bruce: I know you are. If he dares do this thing—"

"Hush, dearest, hush!" Lanning put a gentle hand on her lips. "I beg of you to be careful!" he insisted anxiously. "If such words as yours should ever reach him it would be . . . the end."

"I wonder if that would matter. . . ?"

LANNING was silent for a moment, then he said, "As long as we still have each other and I still have a moderately good position with the Council we can perhaps make out. At least we can *hope* for better things even if they never come."

"Until one man or woman has the courage to stand up to Konda they will never come," the girl answered seriously. "Konda is an inhuman devil, but none dare tell him so. Once such a person arises it will be the end of despotism—"

She paused and straightened up as the black doors of the convention hall suddenly swung wide open and the delegates began to emerge with somber faces. Lanning moved to the nearest one and caught his arm.

"What was the final decision?" he asked quickly.

"As we expected," the man shrugged. "The power of the sun will be harnessed at the earliest moment. Frankly, Lanning, I thought you were magnifi—"

The man stopped, looked furtively around him, then went on his way. And on each man and woman that passed there was the brand of the Master—the market stamp of Drayton Konda. It was maddening. Pitiable.

Lanning turned away with a set face, caught Eleanor's arm.

"I have to see the Master, dearest—his orders. See you later at the apartment."

She nodded silent assent and he hurried off. He walked the distance, thinking as he went, pushed his way through the crowd along the galleries, through the immense ebonoid tunnel that linked up the buildings, up a gently rising staircase, and so at last to the mighty sealed doors behind which was the sacrosanct territory of the Master of the System.

CHAPTER II

Law Without Mercy

LANNING waited while a miscellany of instruments identified him, checked him for weapons, registered him—then the three invincible doors opened one by one and he was in Konda's presence. Slowly he walked to the massive desk and waited . . .

Konda's bald head was a white patch where the desk light shone upon it—the remainder of the giant office was thick-

ly shadowed. Then he looked up suddenly and the white patch was replaced with the friendless glacier-blue eyes.

"What I have to say will not take long, Astronomer Lanning. You are suspended from duty for a period of eight weeks."

Lanning gasped. "What! For my stating those truths at the—"

"What you said was calculated to cast a reflection on my knowledge, Lanning, and that I cannot allow. It was finally decided that the solar powerhouse shall be erected almost immediately. And if you remain in your position it will be considered that I am secretly in agreement with you. Therefore, for the period of time occupied in building the powerhouse—eight weeks —you will be absent."

"But, sir, without work, in a city like this means—means— It means starvation!" Lanning clutched at the desk. "You are taking away my only means of livelihood. You are tearing up my privilege ticket for food, my voucher for money, my permit as an honored Council member—"

"You should have thought of these things before you dared question my judgment at the convention, Lanning." The words came without rancor, without bitterness. They were mercilessly impartial. Then the voice finished, "You may go."

Lanning turned stupidly, back towards the first mighty door. Half aware he heard the buzz of the Master's deskphone. Then suddenly,

"Lanning!"

He swung round eagerly, marched back to the desk. But there was no sign of recanting in the pale, cruel eyes.

"Lanning, you and your wife discussed matters beyond your province on the colonnade tonight. . . . That was most unwise!"

Lanning's face tautened. He burst out abruptly,

"It was nothing important! Only small talk—"

"I know exactly what you said, and your wife too. The electric ear recorded every word of it. I have just heard it from headquarters. Among other things I learn that I am an inhuman devil and that I am drunk with power. That you are right: that I am wrong! Your wife shall learn to regret this, Lanning!"

"By God, Konda, if you even dare to touch her I'll—I'll—"

Lanning stopped dead, gulping down his surging fury as the black shadows suddenly sprouted the grim muzzles of ray guns. He remembered. Robot guards, controlled from the desk. They were everywhere, all over the city, prying, peeping, protecting this baleful genius who was Master of the System.

"Sit down!" Konda's icy voice commanded: then he snapped a switch. "Find Eleanor Lanning and bring her here instantly!"

DURING the leaden silence which followed there was no sound save the scratch of the Master's electric pen as he went on with his work. Lanning sat and sweated, inwardly scalded with murderous anger— There was a click and a concealed door opened. A man in black entered, a man with a pickax face, dark sunken eyes, and a pinched forehead . . .

Melicot! The most hated man in the System outside Konda — legal wizard in whose hands rested the absolute enforcement of law. All infractions, however small, were examined by Melicot with ruthless thoroughness and sparse scatterings of mercy . . .

He sat down beside Konda and relaxed, his mouth a tight scratch and the rest of his face in shadow . . .

Then Eleanor came in by the main door, calmly showing no trace of fear though she must have known only an ominous reason could have needed her presence here. The city guards released her arms.

"Eleanor!" Bruce cried, leaping up to seize her hand. "Dearest—"

She smiled, that slow confident smile that never seemed eclipsed. Then the rasp of the Master's voice broke across Bruce's further words.

"Eleanor Lanning, I understand you disapprove of my rulership of this planet?"

"Decidedly!" She turned and faced Konda with a steady gaze.

"Eleanor!" Bruce choked, aghast.

"The Master has asked my opinion, and I am giving it," she said simply. "In fact, Konda, I loathe everything you stand for, and you yourself are the vilest human that ever walked the earth. One day you will learn to regret the things you have done, and when the last hours come you—"

"You will be silent, Eleanor Lanning," Konda broke in tonelessly. Then he snapped another switch and the conversation on the terrace outside the convention hall played back from the shadowy gloom.

"Well?" the girl asked calmly. "I said all that, certainly."

"You realize just how far you have broken the law?"

She nodded slowly. "Yes, I do. But I would sooner die a lone speaker of the truth than an eternally timid liar! If there were only one man or woman with character and courage in this despot-crushed world, you, Drayton Konda, would no longer rule multimillions of lives from this desk!"

"Eleanor!" Bruce groaned.

"I mean it for you too, Bruce," she said seriously, turning. "It is said one cannot overthrow this despotism. One man *can* because *one* man became ruler. If it comes to a choice of characters, the Master is the stronger because he got what he intended. Somewhere, someday, there must rise one strong enough to break him—"

Melicot's acid voice broke in.

"Schedule 19: Law 22—anybody who speaks in condemnation of the supreme mastership exercised by He Who Rules shall suffer the full penalty of the law. The penalty is . . . death!"

Konda stood up. "You have heard the sentence, Eleanor Lanning, and it will be exacted at dawn tomorrow!" He motioned to the guards.

"You can't do this thing!" Bruce screamed. "You can't condemn my wife to death like this just to satisfy your damned stinking laws! By God, no! I'll break you, Konda: I'll tear this blasted city apart—"

"Bruce . . ." It was Eleanor's quiet voice. She laid a hand on his arm. Konda did not stop her. Deep down in his cast iron soul was a latent admiration for her serene calm.

"Bruce," she repeated gently. "I knew after what I had said that it would be the end. But I would rather die than live any longer in the hell Konda has made of this world. Even Konda cannot forever separate us. There is always somewhere else, way beyond here. I shall be waiting."

"No! No!" Bruce flung out a protecting arm but the blow of a guard sent him reeling back. Dazed, he shook himself, watched the girl led unresisting from the office . . . Then like a tiger he swung back on Konda. Melicot had already melted into the shadows.

"I'm going to stop this, Konda! My wife shall not die, you hear! You can't get away with it!"

Konda gazed at him like a snake.

"Eight weeks suspension, Astronomer Lanning, then you may return to your post. You tried to prevent your wife's foolish utterances on the terrace and that weighs in your favor. Your life shall be spared. You may go!"

"You bet I'll go! And I'll give you all-fired hell before I'm through!"

Lanning swung to the doorway, blundered out into the immensity of corridor . . . but even as he went he knew he had spoken idle words . . .

COOLING from anger, grief descended upon Lanning. Grief and helpless fury. He wandered the pedestrian ways instead of going back to his apartment. And he knew that all the time he was watched. Sometimes the watcher was human: at other times he could feel the faint static bristling through his scalp that denoted a television beam was fixed upon him from headquarters, watching and recording every move and spoken thought.

Once he pondered committing suicide as he gazed down from the mile-high ramparts into the bowels of light below. But even that would not have proven effectual. Before he could have fallen any distance automatic nets would have thrust out from the building face to save him. Suicides were almost unknown in Governopolis. Konda took good care of his workers. He needed them. Suicide was hopeless. Surgery, too, could rapidly put them right in case of a self-inflicted wound . . .

So Lanning wandered again, stunned nearly into amnesia by the horror that had so suddenly descended. Every time he paused he found he was in another part of the city, never quite realizing how he'd gotten there. As before, his wandering was not interfered with. As long as he made no attempt to end his life he was safe. Safe! Hollow mockery!

And each time he paused he seemed to see one of the giant city clocks slicing off more of the night hours. Slowly the summer dawn began to creep over the eternally wakeful city and he was drawn by irresistible impulse to the vast gray facades of the city prison, there to wait, dispirited, hag-ridden, outside the walls.

Upon the stroke of 4 a. m. he saw the telltale light signal wink and expire on the prison roof, the sole broadcast to the unheeding, striving millions of the enslaved that one of their number was dead.

"Eleanor . . . " Lanning whispered, his eyes unashamedly blurred with tears. "Eleanor . . .!"

THE City, merciless and unfeeling, absorbed Bruce Lanning into its matrix thereafter. It assimilated him completely, threw him out afterwards as indigestible, branded its brutal machine stamp upon him as he moved from place to place in a half-waking nightmare. Deprived of his work, without any amenities, he became one of the drifters that must always lie back of a titanic monster of power like Governopolis.

He did not know why he tried to keep himself alive—and yet he did. He drifted down without realizing it to the lowest regions where the scum of outcast workers survived, those for whom the city had no longer any use and who were left to die or starve as circumstance dictated. Konda had his reasons for this, too. To let them rot and starve there just beyond the city was a good example to other workers if they thought of rebellion. Even enslavement was better than the pitiless struggle against death waged in the dark, sombre alleys of the city's backwaters . . .

Then one night light came back into Lanning's hammered brain. It was rekindled by a few words from the man who had trailed round with him in the past weeks—a shoddy, old, bitter man with cavernous eyes and consumptive cough.

"They finished the solar power plant today, Lanning."

"They — finished — the — plant?" Lanning said the words haltingly, through dry lips. "Finished the—" He stopped. The words had penetrated his brain. It suddenly linked him up with the past. The Solar Power Plant! Eleanor . . .

"How long did it take?" he breathed.

"Eight weeks. But it's finished . . . More power—more despotism—more death!"

"Perhaps," Lanning said slowly. He looked down at his hands as though he had never seen them before, inspected his torn and ragged clothing. Then he felt his bristling stubble.

"Crawford," he said slowly, "my punishment is over. I am entitled to go back there— There!" He jerked his head to the infinite blaze of light and power. "I was suspended—"

"I know. I heard," Crawford said, coughing thickly. "You can go back, take orders, do as you're damn well told."

"But at least I can live," Lanning breathed. "Not rot in this stinking backwater. Isn't that worth something?"

Crawford spat. "I'd sooner die than work anymore for Konda. He threw me out, so I stay out. Rotting maybe— But *out!* And you still are willing to obey him after he had your wife executed? I just cannot believe that."

"She died because she spoke the truth," Lanning said, getting up. "Yes, because she dared to stand alone in all this godless emptiness and call Konda a fiend to his face. There was courage, Crawford—courage such as this world has never seen for generations. I was not worthy of her: it was right that she was taken from me. But now I am changed . . . Deeply, unimaginably changed!"

"You're going to try and get revenge, eh? You can't do it!"

"She said one man . . ." Lanning spoke half to himself. "One man—and she meant it for me! One man to free the world! Yes, Crawford, I am going back to take up my old job, praying God I shall not be such a coward as I once was. Then one day . . ."

He straightened up. "I have to get myself in order," he said quietly. "The past died in these eight weeks of hell. For me there is only the future . . ."

CHAPTER III

Miracle in Space

SO LANNING reported for duty again, and with the impartial calm of the law his social security was restored to him. He returned to being a cog in the Council machine, but he knew that he was eternally watched. The mark of suspicion was on him—but he did nothing to nurture that suspicion.

That he had returned for vengeance there was no doubt, but to want it and to achieve it were as apart as the galaxies. All he could do was wait for an opportunity and keep his mouth shut. At least he had a better chance in the Council than in being a drifter.

He made his astronomical reports with religious exactness, came and went from and to his coldly empty apartment every day, never made mistakes,

and never appeared rebellious. But it was noticed that he never smiled . . . Never.

Then little by little some of the things he had predicted for the solar magnetizer began to occur. At intervals there were showers of brickbats upon the city. In some parts of the world the showers were severe enough to inflict considerable injury and damage. It then became part of his work to predict the paths of the meteor streams. When he had the prediction complete the magnetizer was switched off to allow the meteor fields to stream by unattracted.

To Lanning it simply meant his postulations were correct. Nothing more. He was justified in his warnings—but he was not avenged. Not yet.

Storms came next, stirred up by the onslaught of electronic streams upon the higher planes of the atmosphere. In six nights out of seven, as the hot nights of late summer gave way to the cold of the Fall, there were rolling thunderstorms over the monstrous Governopolis. Lightning flung itself in random bolts at the mile-high towers with their huge insulator caps. Rain roared in a flood from raging, tortured heaven. The world over, radio became impossible at such times, despite the hard work of static-eliminator plants . . .

These were nights that Lanning loved. Perched high in the major observatory he was alone, the rest of the staff being isolated in other parts of the building. Here he could watch the blaze of the storm around the giant dome of warpless glass, could feel at one with the fury because it had something in common with his own raging, tortured soul. On such nights as these he could imagine the soul of Eleanor abroad . . . Her name was like a timeless echo now. A bold, magnificent woman who had died that a few words of truth might be spoken.

"Truth," Lanning whispered, his deep burning eyes fixed on the tumult. "Truth—and vengeance! A bridge between! I am the bridge!"

Lightning crackled violet fire as though assenting.

"If there were only one man—!" screamed the wind.

"Konda! *Konda!* KONDA!" crashed the thunderbolts.

"I shall be waiting. . . ." A faint clear thread of remembrance.

"Vengeance!" Lanning breathed, brow damp with the fury of his emotions. "Vengeance, by all the gods! There shall *be* vengeance! Eleanor. . . ." He tore the safety window open and yelled into the wind and rain. "Eleanor, you hear me! You shall be avenged! I am the bridge—!"

Then he turned away, cold and calm, fastened the window. These moods were common things now: Perhaps he was half mad. He didn't know. But that he could be at union with the storm and feel the spirit of his departed loved one in its raging maw did not strike him as unnatural. The storm was battering at Konda's invincible ramparts even as had Eleanor's words of cold-flame truth. . . .

Slowly the storm began to die away and the stars winked out. Lanning calmed with it, settled himself in the chair of the gigantic telescope to make his nightly charts.

It was quite by chance that the mighty instrument was turned on the eastern heaven, and since the Earth had shifted since the last observation the instrument was not trained on the previous night's field, but upon the orbit of Nemesis, the massive meteorite-comet which made a round trip in something like 77 years. First appearing in 1980, it had pursued its journey regularly,

always coming near to but never touching Earth. . . .

But *this* time—Lanning stared, and stared. The long sweeping tail of Nemesis was different. It was oddly foreshortened, and it had never been foreshortened before!

LANNING found his hand trembling on the telescope controls. This meant something—something big. He deserted his chair suddenly and hurried over to the files concerning the visitor. Hurriedly, tensely, he waded through spectroheliographs, plates, mathematical computations . . . No doubt about it: Nemesis was off her course! But why? What cosmic accident had caused this thing?

Back of his mind Lanning *knew* what had caused it, but he did not dare then to give his imagination free rein. It seemed impossible that Fate had given him such a supreme chance to prove himself right. . . .

All that night he remained at the telescope, spent the next day making calculations, then when the next night came —clear and calm for a change—he went to work again. Swinging the giant instrument to where the comet should appear, if following its normal orbit, he found no trace of it! Tensely he swung back to the position of the previous night— Nemesis was still there, a trifle larger, deep color of yellow, and the tail had gone.

Stunned, Lanning stared at the unbelievable. It could mean only one thing. Nemesis had turned right off her course and the tail was invisible now because it was streaming right out behind her and was invisible from the Earth. Nemesis was hurtling towards Earth from out of space, drawn inexorably . . . and there was a reason for that too.

With the dispassionate calm of the true astronomer, shelving for the time his personal hates and bitternesses, Lanning went to work. When he had all his notes complete—and it took him a week, during which time Nemesis had swollen horrifyingly—he gathered them up and left the observatory.

Dawn had just broken. He took the quiet routes that led to Drayton Konda's headquarters. The Master always reached his desk at dawn, and when Lanning was shown in to him he had just arrived.

"Well, Astronomer Lanning?"

If the Master was surprised at the early call he did not show it, but his steely eyes looked at Lanning's strained face curiously.

Lanning said, "When you first erected the solar power plant, sir, I warned you of danger. You refused to listen. I forecast the doom of the world. That doom—is coming!"

Konda's face was expressionless. "Explain yourself!"

"Very well. A meteorite-comet, Nemesis by name, has been swung aside from her normal path of seventy-seven years circuit. The reason for that is that the immense force field generated by your power station has reached out into the depths of space. You are using magnetism. This meteorite is ninety-five percent magnetic oxide of iron, instantly drawn by magnetism—far more so than by gravitation, which is *not* magnetism. It has been caught in the field of your magnet and is heading straight for Earth. Its speed is seven thousand miles a minute; its size, one half that of the Moon. Its gas envelope is highly poisonous. . . . Here are the official records."

KONDA took them, studied them, tightened his thin lips.

"I will give orders for the power station to be cut off instantly and so free

this thing while it is still far away," he said.

"That will avail you nothing," Lanning said, smiling icily. "It is in a fixed path now and on the opposite side from the sun. It is making a bee-line for Earth and nothing can stop it hitting us. The damage is done. Even if by some scientific genius we could maneuver the comet away it would fall into the sun, thereby probably making the sun a nova after its heat has escaped in one gigantic surge, destroying every planet in the system. Surviving that, we might have worlds in eternal twilight, eternal death!"

"We can burrow underground," Konda said, thinking. "We can withstand the impact that way."

"It's speed when it reaches here, will be in the neighborhood of eight thousand miles a second," Lanning stated implacably. "You have eight days to get below—no more. Even if you could do it, it would not save you. . . . I warned you, Konda, warned you heart and soul that too much power would break you one day. Now it is my turn! I shall tell the people what your blind ambition has brought about— The end of the world! Some of them may still be able to escape to another planet."

"I think not, my unbalanced friend," Konda said slowly, looking up. "The people shall know nothing of this. That you have come to me first with the information saves the situation. They shall know nothing!"

"Konda, you can't do it! When the comet becomes visible in the next night or two they will demand explanations from you, the Master!"

"And if the Master is not here?" Konda inquired softly.

"What!" Lanning started. "You can't mean you are going to —to desert the Earth?"

"Naturally my life is more valuable than that of the worker! If the planet is doomed I shall move to one that is not. I have mastered every planet in the System: do not forget that! It is better, on second thoughts, that the meteorite hit Earth than fall in the Sun. Better one planet be destroyed than all rendered useless. . . . I owe you a debt, Astronomer Lanning, for bringing this matter to my notice."

"You skunk," Lanning whispered. "You dirty, white-livered skunk! You will make good your escape and leave the millions of Earth who've sweated and toiled, to destruction. Yeah, so you can start again! By God, Konda, this is one time you won't get away with it—"

"You'll continue to do as you are told," Konda interrupted, a ray gun suddenly in his hand over the desk. "It is definitely time to be rid of you, but not in a way that anybody can know what happened to you. If inquiry is made, you have simply become deranged and removed. Most people know you are more than half mad these days anyway. I shall withdraw all other astronomers from duty before the threat of Nemesis can be fully discovered. I shall not even entrust you to the executioner, because he might talk. . . . You shall go into space, among those beloved stars of yours—there to stop. There to die!"

"Wait a minute!" Lanning snapped. "I'm half mad—okay. I want revenge for the brutal way you murdered—yes, murdered!—my wife! But duty to humanity comes first. There may yet be a way to avert this catastrophe. Fleets of space machines firing neutron guns could perhaps explode this comet before it strikes us—its metallic core, anyway. The gas we would have to provide against. . . . Or you might arrange counter attractors on other planets to draw it aside and neutralize its

danger. There are many things—"

"You said eight days, Lanning. There is not the time. Besides, I have never considered it wise to trifle with the cosmos. If I cannot be certain of beating it I allow it full play. . . ."

Konda got up suddenly. "Walk!" he commanded. "It is a favorable time for your departure, before the staff gets here. *Walk!*"

Lanning clenched his fists, wondering which was best—space death as Konda had planned it for him, or the sudden death of the flame gun. Finally he walked. Life is not an easy thing to sell as long as there is a spark of hope left. . . .

The gun in his back he walked the still deserted galleries in the fresh morning air, ascended the spiral stairway, finally reached the private spacedrome on top of the executive building. Konda motioned him to a one-man flyer. He climbed in, sat in the control chair.

Almost before he realized what had happened, manacles snapped into position around wrists and ankles. He raised a startled face.

"You were prepared for this then, Konda? You must have been—"

"No," Konda contradicted. "But there have been others whom it was necessary to be rid of in the same quiet way as this. The ship is specially constructed for undesirables. . . ."

He leaned over the switchboard and made adjustments to the complicated mechanism, checked the fuel gauge, then turned an expressionless face.

"The time-switch mechanism is set to start in five minutes," he said. "It will operate, hurtle the ship well clear of the Earth, and will then send it on a straight-line journey. You will travel clear out of the Solar System—will go on and on until the power fails. By then you will be beyond Pluto and will continue going at constant velocity until some cosmic body attracts the ship. If by then you have not starved you will die, ground to powder, and no man will ever know. That is how it should be, Lanning. *I* am the master, not you!"

Lanning could think of nothing to say. The inhuman, merciless workings of Konda's mind were beyond his gauging. First it had been Eleanor because she had spoken the truth: now it was him for exactly the same reason. And he had thought he had found a perfect lever to bring Konda's kingdom crashing. Instead—

Then the airlock clicked shut. Lanning stared bleakly at the control board, striving with every effort to break the manacled grip, without avail. He waited through the longest five minutes he had ever known. . . .

THEN suddenly the crushing backward pressure of the start was upon him, forcing him tightly into the chair. In his ears was the roar of the rocket motors, and through the port he saw Earth bathed in pallid morning mist as he climbed into the infinite.

Straight as an arrow, perfectly charted, the ship hurtled out into the star pricked immensity of space. Lanning sat immovable, pinned down—but after a while a sensation of deepening alarm settled on him as he felt a distinct pull of the ship out of its charted path!

The nose was turning, slowly and inexorably, into the field of the titantic solar powerhouse magnet, a field that existed between Earth and Sun. Lanning found himself wondering what would happen. So far no spaceship had ever been near that deadly line: paths had been charted to give it as wide a berth as possible . . . but in his urgency to be rid of his one mightiest enemy Konda had overlooked that this was only a small ship unprotected by

giant rockets able to fire it away from the counter pull.

Anyway, it didn't seem to matter much now. He had done his best—and failed. There was even an interest in looking forward to death—

Then, so suddenly it surprised him, he was in that mystery field. What happened to him was something he could not analyze. His body was shot through with mind-numbing pain. He could not move, could not cry out. He was alive and yet dead, caught in a prickling, firy cramp that felt as though each nerve were exploding separately.

His brain, right out of tune with his body, was slammed and battered with the strangest of notions—as though he were in two places at once. For a second or two he was seized with the illusion that he could see around corners, that his mind was elevated a couple of octaves beyond normalcy . . . then the sensation blasted into a white heat of agony as his body felt to bulge outwards to breaking point. He stared fixedly at his hands and arms swollen like balloons with the narrow neck where the manacle gripped him—

Suddenly a ripping sensation that made him scream with pain. It was like a plaster torn suddenly from a festered wound. It went from head to toe and left him sick, sweating, gasping, white with reaction. But his mind was normal again now and the pain had gone. A sweet languor pervaded his racked being. . . .

Gradually he began to look around him, then his hands again caught his attention. Something was wrong. Desperately wrong! His hands were glass-like! *He could see through them!* Frightened, he looked down at himself. Everywhere that clothing did not hide the fact, he was transparent! He could see the chair through himself!

Nor was that all, for with a sudden effort he lifted up his hands—and they came through the solid manacles just as though he had pulled his wrists through soft, cloying dough. Even as he got shakily to his feet he noticed he sank into the metal floor a little, found solidity at perhaps a couple of inches.

It took him a long time to master himself; but slowly terror gave way to curiosity; then to scientific thirst. . . .

CHAPTER IV

The Last Hours

SLOWLY he turned to the switchboard, found he had just sufficient solidity in his fingers to move the levers. He cast aside the automatic devices and put full blast into the rear tubes. Gradually he felt the ship start to pull away from the battering beam of magnetism. He waited tensely through the long minutes, wondering if he would regain his normal appearance once back in free space . . . His amazement was complete when the transparency remained after dragging out of the field.

Puzzled he started to think, going back over each of his sensations. Magnetism? Opposing forces . . . The first dim filterings of the truth made him gasp— The atoms of his body had become coordinated! Yes, that was it! His mind hurried on to the full postulation . . .

Normally the atoms and the molecules of his body, *any* body, should be chasing about hither and yon, the products of unorganized magnetism. Yet each atom and molecule possesses north and south poles. Magnetism. Unorganized. But if a gigantic force, a strange form of magnetism—such as that issuing from Konda's magnetic powerhouse—were to force all those atoms to turn their poles in *one* direction . . .?

"I'd become as a ghost," Lanning whispered. "Semi-transparent, able to walk through matter. The stray atoms still not turned by the magnetism would make for a slight resistance. That is the 'dough' effect, the reason why I don't sink through the floor. Seventy five percent of the atoms and molecules in my body have been turned in one fixed direction, swung by the magnetism from Konda's power plant. His magnetism reacts on human structure evidently. But not on the ship?"

That puzzled him for a moment—but only for a moment, for when he came to look closely he saw the ship too had suffered some slight degree of transparency.

"And of course nothing can put me right except de-magnetization," he mused. "Anymore than an ordinary magnet can lose its attraction without special treatment . . ."

Slowly the possibilities began to filter upon him. He was unkillable, changed by a scientific fluke into a man to whom matter was no barrier, to whom a bullet was no danger, to whom a death ray meant no more than a ray of light! Vengeance was his to exact at last! There remained—Konda!

LANNING swung to the window and gazed out on space. There, clearly visible in the backdrop of stars, was the yellow ball that spelt doom for the Earth. Destruction sweeping ever nearer, until in a few more days . . . There was not the time to save the world even if it could be told.

All of a sudden everything focused into place in Lanning's mind. It was to be his personal revenge after all: revenge for the death of Eleanor, revenge for his own weeks of misery in the back-waters, his mental turmoils in the observatory: revenge for his intended death . . .

Konda had said he would escape into space to another world. Very well! Lanning gave an icy smile. He would wait. Sooner or later the despot would come to him—then there was sufficient substance left in his fingers to seize that gross throat, to crush, and crush. . . .

But two days and nights passed without any sign of space machines leaving Earth—days and nights which Lanning estimated from the Earth's revolutions. He was not over surprised by this lack of departure for the space perturbations from the fast approaching comet-meteorite were strong enough now to make his own vessel rock up and down like a ship in a stormy sea. It was unsafe for normal flyers: but the riddle was why Konda had not made the trip in a small private machine before now.

Time was slipping by fast. The comet had grown enormously in the forty-eight hours . . . There was no means of finding out anything except by returning to Earth, for the little ship had no radio.

Irritated at the misfiring of his plan Lanning drove the vessel back to Earth as fast as the power could take him. The moment he plunged into the atmosphere he was in the midst of hot vapors rising from the surface of the world. With considerable difficulty, flying by instruments alone through dense fog, he managed at last to make the space-port.

He walked through the airlock without opening it and gazed about him, his feet sinking slightly into the ground as usual. The heat was overpowering: the sky was hidden in a smoky haze of dust brought about by the meteoric streams of cosmic dust preceding the asteroid proper.

Through the ground drifts Lanning saw masses of frightened humans com-

ing and going. Finally he saw a solitary spaceport official struggling through the gloom: he caught him by the arm. The man stared as though his eyes would drop out.

"Bruce Lanning!" he whispered. "The ghost of Astronomer Lanning!"

"Where is Konda?" Lanning demanded. "Tell me! Where is he?"

"Nobody knows . . ." The man's eyes were still round with horror. "The people got wise to this approaching asteroid and demanded he do something to protect them. He said he couldn't. Only you could help and you had gone mad and killed yourself. When the people found him he was just going to escape into space. The people attacked him and he fled into the city somewhere. We've been trying to get a few people away. But Lanning, what's happened to you? Are you alive—or dead—?"

But Lanning had gone, striding into the smoke. Nothing mattered now except Konda. He, and he alone, was responsible for all this. He should not escape to some hidden spot and take off into space to have a further chance to exert his inexorable law. Then there was Eleanor—her death to be avenged.

Lanning went first to the main center of the city. The all-pervading heat haze was everywhere. Humans came and went past him. They would glance back, astonished, but before their minds could register the miracle he had gone . . . Workers, the higher social experts, the engineers, the machines-minders, men, women, and children came pouring up from the depths like smoked-out ants. Some were clutching bundles: most of them had their terrified eyes on the smoky sky.

Lanning went on, through galleries and across bridges, through walls, through sealed doors, like an automaton of another world, indeed like a god, for there was nothing to stop him. Everywhere he looked he saw terror: terror because Konda had wanted too much power . . .

First he examined the administrative building from roof to basement, but as he had expected, Konda was absent. From here he went to the depths of the city where he had spent those anguishing weeks while suspended from duty. Again there was no sign of Konda's unmistakable form amidst the swirling, eddying scum of humanity trailing to the space port.

NIGHT fell. Lanning paused awhile, took what food he could find—for he found he still needed it—rested, then set off again. Night was baleful in its terror. Nemesis was fully visible in the sky through the breaks in the heat-fog. Nemesis, filling half the heaven, visibly rolling and swelling, pouring its insufferable heat down on the world. So suddenly had it appeared out of nowhere, so skillfully had Konda suppressed the news of its deadly menace, there was no time left to avoid it. There were perhaps four days and nights left . . . Then—

Lanning's jaws tightened. Something like ninety-six hours left in which to find Konda.

"I must!" he shouted out loud, to the raging sky. "I must! If it is the last thing I ever do I must avenge! Eleanor! Eleanor! If you are anywhere near me: if your spirit is near in this gathering Hell, guide me to avenge these multimillions of souls whom one fiend betrayed to the furnace!"

He felt a new surge of strength at that, went on like an implacable phantom through the night . . .

Night and day again. Night again. Day again. Night— And still he searched, and ate, and rested. Onward, as the heavens were a mass of

orange light, as the sky became a convex vortex of boiling death.

His endless searching took him through buildings huddled with people who had come in from the savage, smoldering heat of the canyon-like streets. All light and power had ceased. The people were like animals cowering from a forest fire. One or two had bent, heat-twisted candles: others were in shadows whispering prayers for deliverance.

Lanning passed through their midst, his eyes bloodshot with smoke, staring straight ahead of him. This was the last night— The hour glass sand was running low. The last hours! He searched and searched, the bowels of the city . . .

Konda was not there.

Out across the scorching bridges spanning scalding rivers he went, away to the two neighboring power islands . . . Konda was not there either.

Lanning's feet began to drag. The heat was crushing, exhausting. He glanced up, started. With the extra hours of searching the heavens had changed to flaming scum in which everything else had been swallowed up. Within perhaps two more hours the comet would touch the atmosphere. The air would ignite. All life would vanish like tinder in a furnace.

Lanning stopped, harassed and baffled. He was a little to one side of the surging press of people heading God knew where, for there was no escape now. Snatches of conversation reached him.

"There'd be room for two thousand in that powerhouse—"

"Yeah—deep down too! Might stand a chance!"

"Maybe somebody's hiding inside—"

Lanning sprang. "*Which* powerroom?" he screamed, and the file of people halted in consternation at his unexpected, ghostly appearance.

"The East Sector Powerroom—Number Nineteen!" babbled an answer. "It's locked inside. We could hide there! Can you—?"

The ghost of Lanning had vanished again. He walked fast: he ran, sweat pouring down his body. The metal of the bridge was getting burning hot to the feet. It was like walking on red hot cinders. Despite his atomic change he was still a human being . . . Pain-ridden, he staggered onwards obstinately. Before him, in all directions, men and women were dropping, some of them on their possessions. The possessions smoked, glowed, caught fire. The air was heavy with the stench of burning flesh . . . In split seconds the length of the bridge became a line of winking flame along which Lanning ran with desperate speed.

THE East Sector Power Room! Of course, near the midcity, buried like the rest of the powerrooms at half a mile depth, protected from all possible forms of attack by invasion. Four doors, each one three feet thick! Nothing could penetrate them. Nothing—except Lanning!

Time was running out. Still Lanning pelted onward on feet that were blistered. His shoes had been burned off. He got off the bridge and the crazy mass of the city burst upon his vision again, silhouetted against the orange glare of the asteroid. Parts of the city were in flames: from its vast mass came an incessant wailing, screaming and roaring like a chant of the damned. Some people were trying to get away: rocket spurts traced their lesser sparks against the hell . . .

But Lanning was not looking at this. He was looking right ahead of him. He hurried down a pedestrian way now almost empty of people, raced through

a subway, and so reached the first titanic door of Power room 19. He slowed up a little, fighting for breath—then he marched forward, through the first door, through the second, third, fourth . . . Out of the solid reinforced steel he merged into the enormous place and paused, his cold baleful gaze searching the expanse.

The mighty engines were quiet: long since had the workers gone. But amidst the shining giants he presently caught sight of a lone figure pacing up and down—a figure with a bald head who kept regarding his watch anxiously at intervals.

Lanning smiled. It was the smile of a man who realizes his life's ambition—It was cold, merciless, triumphant. Soundlessly he stepped forward and marched down the aisle, stood watching Konda as he came agitatedly round the angle of a giant transformer.

He stopped dead, and for the first time Lanning saw fear spring into those pale, implacable eyes. He stared like one hypnotized. His lips formed the word "Lanning!" but he could not utter it.

"There is not much time left to either of us, Konda," Lanning said slowly. "Even to the last you are rotten, skulking down here away from those you betrayed, afraid to appear and help them for fear you'll get your deserts. But it didn't save you, you see— I'm here!"

"How—? Why—?" Konda babbled. "What's happened to you? How'd you get in here? You're—a ghost!"

"Does it matter?" Lanning's steely voice asked. "All I realize is that we have only a matter of minutes before Nemesis hits the Earth. Our atmosphere will go—untold tons of liquid rock will crash through into this powerroom. This place, mighty though it is, cannot save you. Only space could have saved you, and you were not permitted to get away. I am glad: I have you here—alone. Into my hands has been given the power to exact the human vengeance before the cosmos kills us all. Millions will die because of you, but right now I am thinking of my wife whom you had slain because she dared to tell the truth— Damn your soul, Konda—damn your soul!"

Lanning's semi-transparent hands flashed out, seized Konda's powerful neck in a grip of iron. The fingers sunk further than normal but at last they met resistance. They crushed, harder and harder, until Konda sank to his knees.

"Lanning!" he choked desperately. "Lanning, a chance—!"

Lanning gave no answer. He screwed his fingers until he felt them crack. A faint smile curved his lips as he saw the purpling face and startling eyes—

Then suddenly it came. The Powerroom shook. Heat rolled suddenly into the place, as though it had been dipped in molten lead. Walls, floor, ceiling, machines, all began to liquefy.

Flames caught the dead Konda's clothes and set them blazing. Lanning too felt the insufferable anguish of heat as the atoms and molecules in his body began to regain their normal haphazard positions under the influence of rising temperature. To what end. . . ?

Hotter—and hotter— He felt himself melting away. But across the tumult of a world destroyed there seemed to come that faint, clear echo—

"I shall be waiting . . ."

"Leave — not—a—wrack — behind . . ." he found himself thinking, oddly enough.

The inhuman truth of it blazed across his dying brain.

THE END

LOOKING FOR NEEDLES IN A JUNK PILE

THE old saying "looking for a needle in a haystack" always referred to a search that was sure to end in failure. But some scientists evidently don't believe anything is impossible and so they looked for seven needles in a large city dump—and found them all in one day.

Of course they weren't looking for ordinary needles—these were needles of radium worth over $1,000. Everyone had given them up for lost and the insurance company who held the policy covering the loss of the radium had finally paid the claims filed for the loss.

The radium had been carelessly thrown out with the refuse of a medical office and was burned in the incinerator. After this, the remains were hauled to the city dump where they had defied all attempts at discovery for over a year. A college physics department had even gone over the dump with "a fine tooth comb" in the form of an electroscope but to no avail.

Finally a geologist and his staff of radio experts got wind of the search which had been given up as a lost cause and decided to try their luck and skill at playing detective. After much research, the geologist and staff had perfected a radium locater which consisted of a counter tube able to detect the presence of gamma rays emanating from radium—the nearness being indicated by the increased frequency of clicks in the earphones of the operator. The machine was very simple in construction as well as operation. An ionization tube was hooked up in a vacuum tube circuit powered by batteries which produced over 800 volts that pressed on the anode of the ionization tube. The clicks were produced by the gamma ray as it passed through the ionization tube filled with neon and oxygen gases. The cathode output of the detector tube was amplified hundreds of times by means of an audio amplifier.

Since the total amount of radium in the seven needles only amounted to 35/1000 of a gram, the device had to be made extremely sensitive. The men had done their work so well that the machine could detect the presence of this small amount of radium at a distance of three hundred feet.

TEMPERAMENTAL BLOOD PRESSURE

SUPPRESSED anger has been blamed for the majority of cases of high blood pressure. The wrathful, "blue-in-the-face" employee who has just told his boss where to get off is less likely to develop high blood pressure than the meek, mild employee who takes what his superior dishes out with an affirmative smile, all the while boiling inside with anger.

Psychoanalytic tests have proven that blood pressure rises when a person is seething with inward anger and rebellion and drops to normal when he regains his self-composure and relaxes inwardly.

After a period of years, these fluctuations, caused by suppressed anger impair the arteries so that the heart in order to force blood through must work at an increasingly greater pressure—often proving fatal.

This doesn't mean that the next time you are in an "ornery" mood to go around smashing things or telling people what you really think of them for not all persons who suppress their rage develop high blood pressure. Only in extreme cases where from childhood on people have had to do things they loathed and pretend to enjoy them has high blood pressure resulted.

THE HOLLOW PLANET

By DON WILCOX

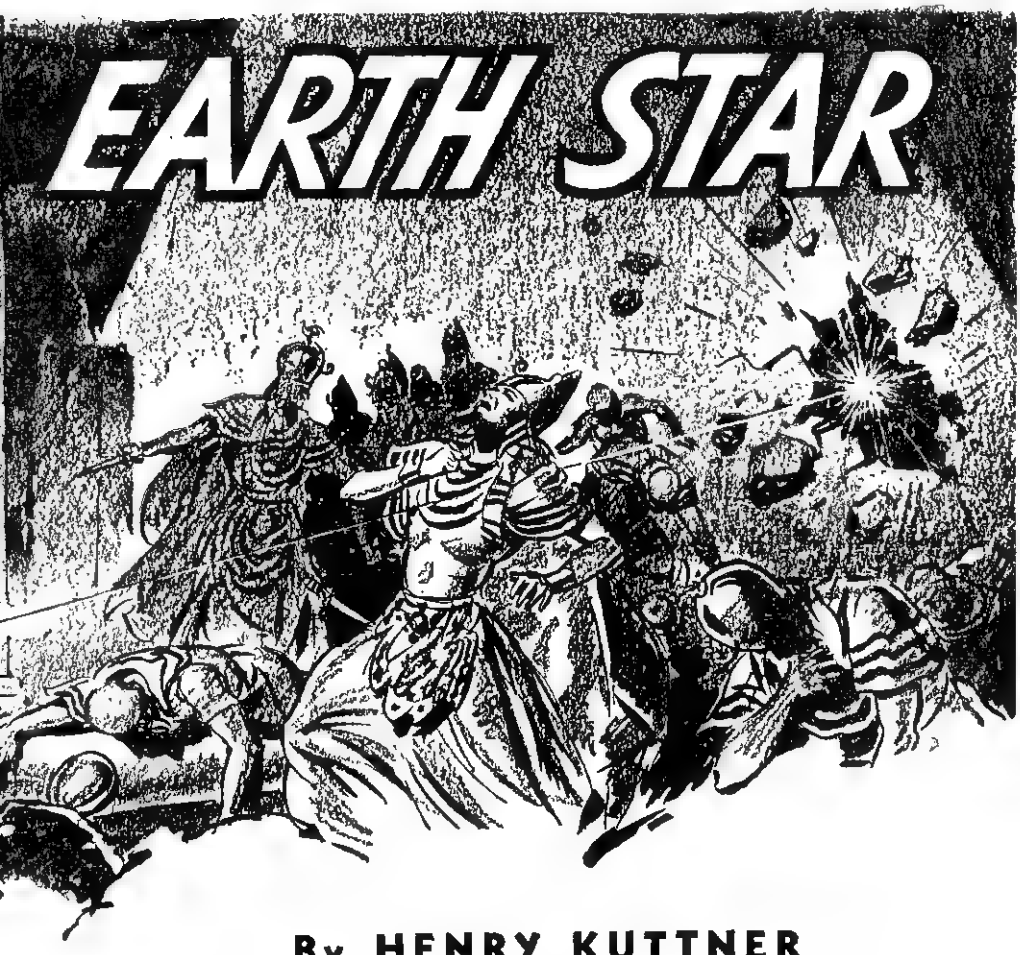
33,000 words of the most amazing fiction this famous author has ever written. A story you will remember for many years!

COMING NEXT MONTH—DON'T MISS IT

Secret of the

The jewel glowed and death leaped from the gun

EARTH STAR



By HENRY KUTTNER

The theft of the Earth Star blazed a trail of death to a weird city under the Sahara

DESPITE the blazing heat of the hot Indian night, this air-conditioned room in the palace was cool and comfortable. It was a bit too luxurious for a business office; otherwise, it might have been any New York suite. Three men sat at a small glass-topped table, on which stood a Gladstone bag.

They rose as two Indians entered, bowing respectfully to the Rajah. The latter was a small, weak-faced man with a straggling moustache and lips too large and red for his sallow face. He barely acknowledged the greetings, his gaze riveted on the leather bag.

"You have the Earth Star?" he asked.

"Yes," said one of the three Europeans. He opened the bag, unlocked a metal case built into it, and withdrew a jewel-case. This he opened and placed flat on the table.

The Rajah's mouth went dry. He could not repress a little shiver. "The Earth Star . . ." he whispered.

On black velvet the great gem flamed. It was lens-shaped and supernally love-

ly, with rays of living light flaming out from its heart. The colors latent within it changed and shifted under the soft illumination. It was like a diamond—yet no diamond had ever possessed the wonder of the Earth Star.

The Rajah's secretary breathed deeply. "Carbon," he murmured. "A tree-fern some million years ago—"

One of the Europeans interrupted, though he did not look away from the jewel. "A little more than that, sir. It took unusual pressure to make the Earth Star. It came from the new cavern mines under the Atlantic, you know, when they were taking cores to test from immense depths. A tree-fern made the Earth Star—but that fern was somehow buried deeper than man has ever thought possible. It's immensely harder than diamond, though it's carbon, of course. And the only one in existence—"

The Rajah said softly, "There is an Earth Star in the crown of your ruler."

A subdued smile went the rounds of the group. "So there is, and an excellent imitation, too. I repeat: you will be the owner of the only Earth-Star in existence."

The Rajah placed his slim hand, glittering with invaluable jeweled rings, flat on the table-top. "Then it is a bargain. My secretary will give you a check."

Abruptly the moonlight was blotted out. The figure of a man seemed to rush out of the night, leaping in through the open window to land lightly on the deep carpet. And that window overlooked a sheer abyss, reaching down to the river gorge far below.

The sudden movements of the Europeans, and the quick gesture of the Rajah's secretary, were arrested at sight of an oddly shaped pistol in a gloved hand. The intruder stood motionless, one hand gripping a light metal ladder that extended up through the window and out of sight. He wore ordinary flying togs, but his face was hidden by a black silk mask.

"Don't move," he said, in a low voice that was obviously disguised. "No—don't do that!" The pistol jerked slightly; otherwise there was no indication that the trigger had been pulled. But one of the Europeans cursed softly as his arm dropped to his side, paralyzed.

"A neurogun," the masked man observed pleasantly. "It *can* kill, you know. . . . I'll thank you not to move. Now—" He hooked the flexible ladder across a chair and moved warily to the table. "The Earth Star, eh?"

"Don't be a fool," the secretary said. "You can't hope to sell that. It's unique."

The intruder did not answer, but his quizzical gaze was amused. The tallest of the Europeans snarled, "Sell it? Jackass—haven't you ever heard of the Merlin?"

As he spoke, his foot moved slightly toward the chair to which the ladder was attached. He froze as the Merlin turned toward him.

"You recognize me?"

"I've heard of you."

"Good!" The Merlin's voice was suddenly sharp. "Then listen! I have ways of finding out what I want to know. I discovered that certain powers ruling your country had decided to sell the Earth Star to our friend the Rajah. The price I don't know, but it must be fabulous. If that money were to go to needed purposes, I'd not have come here tonight."

The tall European kicked the chair gently. The metal ladder slipped off, slid across the carpet, and vanished out the window. The Merlin apparently did not notice, though his retreat was now cut off.

HE WENT on: "But the money is to be used for armaments. And you gentlemen, and those behind you, are trying to foment a new war. As for you—" He glanced at the Rajah. "You are a degenerate moron. *Don't move!* It's probably the first time you've ever heard the truth, but you're going to hear it now. You're the wealthiest man in the Orient, and you inherited your fortune, as well as your powers. You won't buy the Earth Star out of your own treasury, though. It'll mean taxes for your people, who are starving already. Another reason why I'm here."

The Merlin glanced down. "This bit of carbon is causing trouble, I think. So I'll take it along. The imitation that was made to replace it won't interest the Rajah. So—"

He slipped the jewel in his pocket and moved back toward the window. The others watched him narrowly. The Merlin apparently did not notice the absence of his metal ladder.

The gun was still steady in one hand, but in the other he now held an object like a small flashlight. "You may be interested in knowing how I evaded your guards and alarms. I came in a gyroship."

"But—my motor-killing rays—" The Rajah's eyes were wide.

"They extend up only 300 feet. I hovered well above that point and came down a ladder. And here it is."

The ladder swung in from the darkness. The Merlin's voice was amused as he slipped the "flashlight" into his flying suit.

"A clever trick—but I have a very powerful magnet. I'll leave you, gentlemen—"

For an instant his attention was distracted as he put one foot on the window-sill. Simultaneously the tallest European acted. With a deep-voiced oath he sprang forward, seized the Merlin, and clamped one hand over the outlaw's gun-wrist.

"Hold him!" the secretary shrilled. He dived for an alarm buzzer. The other Europeans closed in.

The Merlin fought in silence. His opponent was trying to drag him back into the room—and that would be fatal. The outlaw dropped his weapon and gripped the ladder, with both hands now.

He pulled himself up, putting all his weight on his arms. Inevitably the European was lifted too. Overbalanced, the two went arcing into the night as clutching fingers missed their mark by a fraction.

"Shoot!" the Rajah screamed. "Shoot him!"

Guns blazed from the window. Dim in the moonlight two figures were struggling on a frail metal ladder, suspended above nothingness. A scrap of cloth went fluttering down.

"His mask—"

Out of the dark came a voice, sharp and clear.

"Martell!"

It rose in a scream. One of the figures went plunging down.

The secretary was at the window, a flashlight in his hand. He focused the beam on the quarry, a man in flying togs who kept his face turned from the light. Now other rays shot out from the roof, bathing the Merlin in merciless brilliance. A shot cracked sharply.

"They'll get him," the Rajah said. "I've sub-machine guns on the roof."

The Merlin's hand lifted, fumbled over the ladder. And—suddenly—he was gone! Ladder and outlaw vanished!

The Rajah stared in blank amazement. "How—"

"Automatic winding device in his plane. It just wound him up." The European who spoke looked at his

empty gun. "Better get your planes after him."

At a nod from the Rajah the secretary hurried from the room. "We'll get him," royalty remarked.

"No, you won't. The Merlin's got a fast plane. He's pulled off these things before. But this time—well, he lost his mask."

"Did you recognize him?"

"Stone did, before he fell. He screamed a name. Remember? Martell."

"A common name," the Rajah frowned.

"Stone and I worked closely together. He knew no Martells. He recognized the name and the face from elsewhere. Newsreels—newspapers—everybody knows Seth Martell and his sons. I'll get in touch with my government immediately. May I use your televisor?"

"Yes. Recover the Earth Star, and I'll buy it."

"That," said the European grimly, "is a bargain."

CHAPTER II

Escape

SETH MARTELL'S craggy, strong face was set in harsh lines as he sat staring at a folded paper on his desk. Sunlight came warmly through the windows of the penthouse apartment above New York, silvering Martell's iron-gray hair and clipped moustache. He looked hard as nails—till he lifted his lids and gazed at the three young men before him.

Seth Martell was one of the biggest men in America. Connected with the military, high up in the government, his honesty had never been questioned, nor his devotion to his country. Always he had been unswerving in serving his own ideals, no matter what self-sacrifice it entailed. Now—

Now there was pain in his gray eyes.

He looked at his three sons and hesitated, tapping the folded document with stubby, calloused fingers.

"Well?"

None of the three spoke.

Martell reached for a buzzer, and then drew back his hand. He looked at the tallest of the three.

"Tony. Are you the Merlin?"

Tony—a dark, lean young man, with very keen black eyes and a thin eager face—cocked up a quizzical eyebrow. "I, sir? The—"

Martell's restraint failed for an instant as he snapped, "Answer me!"

Tony sobered. "No, sir," he said quietly. "I'm not."

"Phil."

The second youth, blond and stocky, took a stubby pipe out of his mouth.

"No, sir."

"Jimmy."

The third of the trio looked somewhat like Tony, though a less matured man. The eagerness in Tony's face was enthusiasm in Jimmy's, boyish and pleasant. He shot a quick glance at the others, hesitated, and finally said, with a little frown, "I'm not the Merlin, sir."

Martell sighed. "All right. Go in the sun-room and wait, boys. The investigators will be in presently." He sat steadily regarding his nails till his sons had departed.

Tony left them at the door. "Be with you directly," he murmured, and hurried off along the corridor. The others went into the room, and ten minutes later the oldest of the three came in, his face blandly impassive. He went to the window and stood staring out over the skyscrapers of New York, waiting on the verge of the 21st century. He began to whistle ruminatively.

"Seth insisted on interviewing us before the detecs. Good of him."

Young Jimmy, nervously lighting a cigarette, nodded. "Damn good. But all this. . . . I don't understand it."

Phil's serious eyes were questioning. "Are you sure? There's no doubt the authorities think one of us is a crook. I wonder—"

There was a little silence. Finally Jimmy asked, "Who is this Merlin, anyway?"

"Cleverest crook in the world," said Tony, turning. "At least, he's been kicking around for two years. That means a lot these days. He's pretty much of a Robin Hood. Only kills in self-defense—and never for personal profit."

Phil broke in, "Plenty of criminals have evaded capture for years, but they're the small fry. Not important enough to attract attention. But the Merlin—everyone thinks he's had years of experience. Remember when Janison died? The governor? The Merlin killed him, and nobody knew why till they found out Janison was one of the biggest political racketeers in the country. He's a Robin Hood of sorts, but the law won't stand for Robin Hoods."

"And," said Tony sardonically, "one of us is the Merlin. So they say."

Phil grinned. "Which one?"

"Oh, they'll find out. They'll chart our psychology—our character patterns —and check it with the analysis of the Merlin's activities. Their lie-detectors will tell them which one of us is the Merlin. That's positive identification, you know."

JIMMY crushed out his cigarette, lips working. He swung suddenly on the others.

"You're damn flippant about it! What if it's true? What if one of us *is* this crook—d'you know what that'll mean to Seth? His son shown to the world as a thief and a murderer. Seth will stick by us; I know that. But I know what his honor means to him. He got that silver plate in his skull because he thought more of honor than his life. And now—"

"Shut up, Jimmy," Phil said quietly. "We know all that. But what can we do about it?"

Tony murmured, "Our youngest brother is about to suggest that the Merlin confess. A touching sentiment. Headlines all over the world announcing the news. Seth resigning all his offices immediately — he'd do that. Everyone knowing that a son of Seth Martell was—the Merlin."

Phil said, "The Merlin might . . . disappear."

"He'd have to disappear for good. Suppose I'm the lad, Philip, and suppose I disappear. A signed confession would be just as effective. The moment I disappear, it proves I'm the Merlin. No one has ever watched us. As Seth's sons, we're above the routine character-checks. We reported to Seth once a month. Otherwise we were free, all of us, with plenty of time to do as we pleased. Including brigandage!"

Phil grunted. "Anyway, people can't simply drop out of sight in this day and age. Not with television, specialized wireless, telephotography, and so forth. Where the devil could a man hide for years?"

"In the Foreign Legion," Tony said, and waited. His gaze searched the faces of the other two.

Surprise, astonishment, and incredulity showed. And vanished. Into Phil's eyes came a look of dogged grimness. And Jimmy's face showed—excitement.

"The Legion?" he asked.

"Yeah. No extradition. Since 1960, when the company started. No government has a hand in the Legion. They rent its services from the company, just

as the Hessian dukes used to sell their soldiers to fight for other countries. When there's a job to be done too dirty for anyone else, they ask the Legion—and waive extradition. The Polar fortresses. The Sub-Sahara. The Canal Patrols on Mars. Dangerous space-lane patrols. It isn't like the ancient French Legion. This one's privately owned, and, once you get in, nothing on Earth or Mars can touch you. As long as you're in the Legion. Men don't live long in it, as a rule."

"Cheerful thought," Phil grunted, puffing at his pipe. "By the way, which of us *is* the Merlin?"

Tony smiled. "I'm the guy, lads. And that's what I've been building up to. I'm going to drop out of sight. Head for the Legion. And—well, I wanted you two to know about it. I can't tell Seth, of course. But—"

"I'll be damned," Phil said in blank amazement. "You've got the Earth Star?"

"That's right."

"Odd. I happen to have it myself. In a hollow tooth."

"You're both crazy," said Jimmy. "I've got it."

Tony shook his head. "It's no use. There's no point in the three of us going into the Legion. One's enough. So—"

Phil said, "Wait a minute. Suppose all three of us disappear? Nobody'd press a charge against three men, when obviously two were innocent. I happen to have the jewel myself—"

"Yeah," Tony grunted. "But slow down. You're both going off the deep-end. I'm leaving now. Heading for the Legion, and you're both staying here."

Jimmy said, "We'll meet you there."

The argument kept on—with no result. Jimmy and Phil were adamant. Each one insisted he had the stolen gem. And, if they didn't accompany Tony, they'd simply go after him on their own hook. "So we'd better stick together," Phil said at last. "We'll have a better chance that way."

Tony's lips were compressed. "You crazy fools! You'd do it, too . . . well, stay here. I'm going after an amphiplane."

"What if the investigators get here first?" Phil asked.

"Stall 'em. And keep your eye on that window."

Jimmy was chewing his lip. "How do you expect to get out? If there are guards—"

TONY'S grin flashed. "You'll find out." He turned to the door—and was gone, apparently unruffled. But as he hurried along the passage there was a gnawing uneasiness in his mind. Guards would no doubt be watching to prevent just such an attempt at escape as this. Only blind luck could help now.

He went into the big, gleaming kitchen, a bare room with murals on its walls. Every appliance had been built-in, so that stove, tables, and so forth, could be swung out from their cubby-holes by the pressure of a button. The room was empty.

Tony's sharp eyes flickered about, resting at last on a panel near by. He went to it, swung it open, and revealed a black hole beyond. The dumbwaiter. A glance upward informed him that the little car was below, though how far he did not know. Deftly Tony swung his legs through the hole and seized the ropes in strong fingers.

He closed the panel behind him.

It wasn't entirely dark. A diffused pale glow filtered down from above, and gently, carefully, Tony let himself slip toward the shaft's bottom. It was a long chance. Unless he found footing on the dumbwaiter car soon, his fingers would inevitably lose their cramped

grip. For this was a penthouse apartment in a skyscraper.

Down he went into the shaft. Skin scraped from his hands. It grew darker, and below him was only unfathomable blackness. Tony hooked his legs about the rope and rested for a few moments, though he dared not delay long. Time was vitally important.

Then down he went again. He was in pitch darkness now, every muscle strained and beginning to ache. His hands stung painfully. His shoulders were throbbing.

Tony's feet thumped softly upon the peaked top of the car.

Gasping with relief, he relaxed, keeping the ropes wound about his wrist so that his weight would not carry the car to the bottom too suddenly. But a moment later he was plummeting down, occasionally checking his speed when caution grew stronger than the imperative need for haste. Up in the penthouse Jimmy and Phil were waiting, perhaps being questioned even now by the investigators. And Seth—unseen in the darkness, Tony's face grew grim. Seth was suffering. The old man's devotion to his ideals, to humanity was pitted against his genuine love for his three step-sons. And one of those three was the Merlin.

Finally the car thumped against the bottom of the shaft. A little crack of light indicated the panel opening into the porter's cellar. Tony used his knife-blade to open it, easing the door outward little by little till he discovered that the room was vacant.

The rest was surprisingly easy. A pair of overalls and a cap in a closet made a satisfactory disguise, and, carrying a can of rubbish, Tony walked blandly past the service man posted on guard outside. He deposited his burden on the sidewalk, and without a pause began to hurry toward the corner. A hail stopped him.

"You, there! Wait a minute!"

Tony turned. The guard was following him, gaze probing. A thick finger thrust out suspiciously.

"Where're you going?"

The street was almost empty. Tony didn't wait for the guard. He hastened toward him, arms hanging loosely at his side—until the last moment. Then, as recognition came into the man's eyes and as his hand dived into a pocket, Tony brought up his fist in a vicious uppercut. The blow was delivered at such close quarters that it went unobserved by passers-by. The dull thwack of bone against bone was the only sound. Tony caught the guard as he fell, pulled him swiftly back into the cellar, and left him there. The man was out for the count.

THERE were no other guards. Tony's progress was not halted again. He reached his destination, secured a small, s w i f t amphiplane, equipped with gyros, and lifted it through the port in the roof. Luckily, he had plenty of money in his pocket—enough to buy the plane instead of renting it, had he desired to do so. But, like most ships of this type, the instrument board was fitted with a "homing pigeon" device, by which the plane could be set to return to its garage along a radio beam whenever desired.

Tony's fingers flickered over the controls. The ship was a honey—small and swift, built like a thick cigar, with retractable wings and props. He swung up in a wide arc that presently brought him directly over the penthouse that was his goal.

Briefly he wondered what had happened there, and whether Phil and Jimmy were still waiting. Well—fast work was vital now. The investigators were

already on guard. Sight of an approaching plane would warn them of trouble. Tony checked his controls, took a few deep breaths—and dropped faster than was safe. The wind shrieked up into a high-pitched whine past the ship, almost beyond the threshold of hearing.

The skyscraper leaped toward him like a driving lance. Its top seemed about to impale him. But the controls had been expertly set, and the craft fled down safely to one side, stopping with a bone-wrenching jolt as the automatics took hold. Tony fought back giddiness and stared out through swimming eyes. His blurred vision focused. Too far to the left—

He slid the ship forward. This was the window. Inside, he could see Phil's broad back, and one hand extended in a sign of warning. So the investigators had already arrived. But where was Jimmy? Tony couldn't be sure.

A voice he didn't recognize was talking. One of the investigators . . .

"Well, we'll find him. And the lie-detectors will give us the information we want. Trying to frame Seth Martell is the dirtiest thing the Merlin ever did."

Jimmy said, "You're nuts."

"Yeah? One of our men saw it. The Merlin was opening Martell's safe—trying to put the Earth Star in it and throw the blame on Martell. But he didn't have time. Our man was too close, and the Merlin had to scram in a hurry. Now—which one of you was it?"

Tony's eyebrows lifted. A new element had entered into the affair. Trying to throw the blame on Seth—yeah, that *was* a hell of a lousy trick. So—

Tony whistled softly, and saw Phil jerk aside, crying out something. A slim form came hurtling toward the window. Tony got a glimpse of Jimmy's pale young face; then the boy was hurtling out into space, almost overshooting the mark in his eagerness. Tony seized his arm and pulled him back as he swayed on the ship's edge. The craft dipped slightly under the additional weight, and then lifted again as compensatory stabilizers went into action.

FROM within the room came a crash, and a sharp cry of pain. Phil appeared, his face stolid and expressionless. He jumped, landing accurately, and immediately whirled. In his hand, Tony saw, was a bronze figurine he had snatched up from a table.

"Run for it!" he snapped. There were faces in the window. A gun snarled viciously. Phil hurled the figurine with deadly aim, shattering the glass above the group, and the investigators dodged back as shards and splinters showered them. Almost immediately they were back—but Tony's hands had found the controls.

The ship fled up. As it fled it curved southward, till far below could be seen the shining waters of Long Island Sound.

Jimmy said tautly, "They're coming after us. I can see planes—"

Phil touched a lever. The upper framework of the plane was instantly sheathed with transparent walls, making it more than ever resemble a fat, shining cigar.

Tony sent the craft rocketing down. Almost at the surface of the water, he pulled out into a glide, swooping almost without a splash into the Sound. The light was blotted out by green translucence that grew darker as the ship slanted into the depths.

"Not too deep," Phil suggested. "The hull won't stand a crack-up."

Tony didn't answer. He was fingering the controls, trying to get every possible bit of speed out of the ship before the pursuers located it with their search-

rays. If they could reach the outer Atlantic, they'd be safe—barring accident. But they were not safe in the Sound.

Abruptly the water ahead sizzled and bubbled with heat. An aerial torpedo had been launched. Tony shot up and then almost immediately dived again, shifting sharply to the left. Before his companions could get their breath, the ship was rushing back along the way it had came, retracing its path. Jimmy said sharply, "What the hell—"

Phil's fingers dug into the youngster's arm. "Good idea, Tony."

The latter nodded. "Maybe. We'll dig in at the mouth of the Hudson. They'll never look for us there. Then tonight we can slip out, take the air again—and head for the Company."

Jimmy said, "Once we're there, we're safe. There's no extradition from the Legion, eh?"

"Only to Hell," Tony remarked, grinning.

CHAPTER III

Legion of the Lost

"SO," SAID the fat little man with the shaved head, "so you want to join the Legion. Eh?"

Tony looked him over. The dingy office in the outskirts of the North African city was unimpressive. But, somehow, the little man was not. He wore dirty white tropical linens, his face glistened with sweat, but to the three brothers he represented fate. On his decision their destiny would depend.

"Yeah," Tony said. "We want to join. Well?"

The little man smiled, tapping pudgy fingers on the crowded desk. "Well. Let's see. You passed the physical examination. Your names are—Anthony. Phillips. Jameson." The pale blue eyes sparkled maliciously. "Better remember 'em. Sometimes it's hard at first, but you'll get used to them. I'm sure I don't know why everyone who enters the Legion changes his name. There's no extradition. However . . . You are joining for a term of five years. If you wish to leave before then, you can buy your freedom if you have the money. If you have not, you must serve your term.

"You may try to escape. You may succeed. You may fail, and in that case will be assigned to the guards in the uranium pits of Mars. No one has ever escaped from there. It is not advisable —" The blue eyes were hard as steel now. "It is scarcely wise to attempt escape. Aside from all else, when you leave us, you are no longer under the Company's protection."

He passed a plump hand over his shining head. "Anything more?"

Tony glanced at his brothers and shook his head. "Not a thing. What happens next?"

"The Sub-Sahara post needs men. It's an easy job for recruits, keeping the Copts in check and seeing they don't go outside raiding. Here!" A buzzer rang, and soon a man entered, clad in the dull gray uniform of the Legion. He saluted casually.

"Sir."

"Captain Brady," said the fat little man, "these three are assigned to Sub-Sahara. Rookies. Anthony, Phillips, Jameson. Break 'em in." He immediately became engrossed in the papers piled high on his desk.

Tony looked at the officer with interest. He saw a spare figure, and a worn, tired face, deeply lined, with sunken eyes and a clipped moustache. An adventurer gone to seed, he thought —grown tired.

Brady said, "Come along," and led the way out of the room. They emerged in blazing white sunlight. A helicopter

stood a few rods away, and the captain gestured toward it.

"*'ntre*. We'll fly, and talk as we go. Discipline needn't begin till we reach Sub-Sahara, so if you've any questions —I'm at your service."

He pointed toward the plane, and followed the brothers into it. With quick, familiar motions he lifted the craft into the air and sent it winging southward.

"I'll stop at Azouad. That's an oasis on the way. You can get smokes and equipment there—personal stuff you may want. That is—if you have any money."

Tony's eyes narrowed, but he merely said, "We've a little." He shifted on the worn leather seat, glancing aside at Captain Brady. The man's haggard face was immobile, the eyes mere slits as he squinted into the flaming sunlight.

From the rear of the plane came Jimmy's voice. "Just what is Sub-Sahara?"

BRADY'S voice went dull with routine. "Well—twenty years or more ago a labyrinth of caverns was discovered under the Sahara. It was inhabited by survivors of prehistoric Egyptians—Copts. They were trapped underground in some ancient catastrophe, and got along there, gradually growing accustomed to their environment. Matter of fact—there was a sort of colony in the old pre-dynastic days down there. The Copts worked mines, and there was a—well, a city of miners under the Sahara. When the entrance was blocked, the miners couldn't get out—so they stayed there."

"What about food?" Jimmy asked. "And oxygen?"

"There's a lot about that Copt tribe we don't know. Food—well, fish and mushrooms are staples. The Midnight Sea lies under the Sahara. Ages ago the water in it made the desert itself a sea, but it drained underground at last. As for oxygen, there must have been outlets before we blasted some, though they've never been discovered. Possibly through river caves that drain into the sea."

Captain Brady rubbed his eyes with the back of one mahogany hand. "A lot we don't know about the Copts. Savage, ferocious—but marvelous miners. The Legion's posted there to keep order. Prevent raids on the surface tribes. The Copts worship Isis, or the Moon—I dunno which. Probably they're the same. Keep clear of them unless you're armed; don't monkey with their religion; and don't enter any passages engraved with the emblems of the Moon and the sistrum."

"Why not?"

"Religion, youngster. No white man has ever seen the Ka'aba—the Black Stone—at Mecca. It's sacred to the Moslem, just as the Alu—the group of deepest caverns—are sacred to the Copts. They say Amon-Ra is down there."

Jimmy's eyebrows lifted. "Amon-Ra? The ancient Egyptian god?"

"Right. 'The Hidden Light.' We have a sort of armed truce with the Copts, provided we don't interfere too much. When they get out of line, we whip them back. Figuratively, of course." Brady's hand touched the buttoned holster at his thigh.

"What did you say the sacred caves were called?" Phil asked suddenly.

"Alu."

"What does it mean?"

"The Land of Light." Brady looked around. His face was alight with interest. "Have you studied Egyptology?"

"No—afraid not."

The captain's eyes lost their glow. "Um. Bit of a hobby of mine. Land of Light—Hidden Light—Isis, the

Moon goddess—I've always wondered what exists in Alu. Never found out. Never expect to. But I shouldn't be surprised if there's the wreckage of a civilization down there."

He chuckled. "Not that the commander agrees with me—Commander Desquer, you'll be under him. But he can't tell me how the Pyramids were built, or the explanation of so many mysteries of Egypt. In my opinion, space travel was understood ages before Europeans achieved it. Yes . . ." He nodded thoughtfully. "A puzzle. A nomadic civilization on the Nile, and then, without warning, a civilization full-blown and decadent. Where did it come from? It was decadent when it reached Egypt. I wonder . . ."

He turned to the controls. "Here's Azouad. Half an hour. You'll find plenty of shops. Don't buy any wines —they won't keep in Sub-Sahara. Brandy's good. And pipes wear better than cigarettes in the Legion."

Below the gyro was a patch of gray on the brownish, rolling Sahara plain. Small dots of faded green were visible, trees struggling desperately for moisture and life. In a clearing Captain Brady set down the ship.

"All out," he grunted. *"Parte!* Half an hour, remember."

THE brothers watched the lean figure move briskly across the sun-baked square, to disappear into the depths of a cantina. Then they looked at one another.

"Well!" Jimmy murmured. "So we're in the Legion!"

"Sub-Sahara. Um. Come on; we've only half an hour. Let's look over Azouad." Tony hesitated, gripped Phil's arm, and glanced up. "That a plane?"

"Yeah." Phil squinted aloft. "Wait . . . not a government plane. Private. Anyway, so what? There's no extradition."

"I know," Tony said softly. "But the Earth Star's plenty valuable. Somebody might have . . . ideas."

"Maybe I'd better mail it back home," Jimmy grinned.

Three glances crossed. And, curiously, at that moment a shadow drifted across the brothers—the shadow of a plane, chilling them momentarily after the blast of the African sun. It was like an omen.

Phil said, "I wonder which of us really has it?"

"I have," Tony remarked. "Come along. I want a drink."

He led the way, shouldering through a crowd of assorted riff-raff, the usual scum of a bordertown. Odors of sesame, oils, and less familiar stenches were sickeningly strong. Dozens of mongrols roved hungrily about; the flies were countless.

They bought smokes and entered a cantina, dark and muggy. A fat native served them squareface gin, waddling toward the dim corner where they sat. Behind them, Tony noticed, was a door, half opened less to permit fresh air to enter than to allow foul to emerge. He pushed it shut with a casual foot.

The gin wasn't good, but it was strong. Also, it was inordinately expensive. Jimmy made a wry face.

"Hell of a lot of good money will do us now. We've ten minutes. Think we'll like Sub-Sahara?"

"It sounds—interesting," Phil said slowly. "Captain Brady's certainly hipped on his Land of Light. I wonder what sort the Copts are?"

"Tough hombres," Tony grunted. There was a brief silence. The waiter appeared, refilled glasses, and departed. Then—

"Merlin!" a soft voice whispered.

Tony's fingers tightened around his

glass. Phil sat perfectly motionless. Jimmy's head jerked slightly; then he was immobile.

Tony looked around, and the others followed his lead.

Standing beside them was a small, round-faced man, his beady dark eyes glinting beneath a sun-helmet, his tropical whites looking freshly laundered. His gaze swiveled sharply from one to another of the trio. A shadow of disappointment flickered over his features and was gone.

Tony said, "Who the devil are you?"

The stranger flashed white teeth. "The private secretary of a certain Rajah. One of you has seen me before. I do not know which one. However—"

"He's crazy," Phil grunted. "Batty as a bedbug. Drink up, boys."

"My name is Zadah," the man went on without heeding the interruption. "I know that one of you is the Merlin and has the Earth Star. I want it."

Tony looked at the man. "Do you think anybody'd who'd stolen a jewel would be fool enough to keep it on him?"

"The Merlin would. Because he'd want to make certain that a certain—deal—wouldn't ever be completed. An imitation of the stone was made, so perfect that the deception can be discovered only by comparison with the original. Someone might try to sell the imitation as the original jewel—and the Merlin could block such a transaction only by producing the real Earth Star. He won't get rid of it. Not unless—he's forced to."

Tony drank gin reflectively. "There's an offensive odor in this place," he remarked. "Notice it, anybody?"

Zadah said, "I do not want the police to find you or the Earth Star. If I recover it myself, the Rajah will pay me any price to have the jewel—and the original owners can prove nothing. My private operatives have traced you this far. Now—" He took out a small gun. "You will stand up and walk one by one through the door behind you. Stay in single file. My plane is just near by. We will fly to my country, and there—" Again the teeth flashed. "There I think it will not be too hard to learn which of you is the Merlin."

Tony hesitated, remembering the plane he had seen in the sky. Zadah held the gun almost hidden under his coat, but of its deadliness there could be no doubt. The brothers exchanged glances.

"Stand up!" Zadah whispered.

Tony obeyed. He turned toward the door, opened it, and stepped out into sunlight. The others followed. Zadah said, "To the left."

They moved slowly through an alley, littered with refuse and foul with odors. Not a soul was visible—only a stray cur that ran past, tail between its legs.

"Across the square. The gun is in my pocket, but I have my finger on the trigger. Make no suspicious move."

Tony's lips were white. He guessed well enough what would happen once he and his brothers were captives aboard the plane. Zadah would not stop at torture to achieve his ends. If only—

But there was no sign of help. Across the square they went, toward a small gyro in its center. Loungers in the shadows of the low buildings eyed the group incuriously as they passed. They walked on, toward a cantina, past its door—

CAPTAIN BRADY came out. He hesitated, his sunken eyes intent on the spectacle. Then he moved like an uncoiled spring.

Zadah sensed danger. He started to whirl, dragging his gun from his pocket. But Brady's hand chopped down viciously, the edge of the palm smashing

against the secretary's spine, at the nape of the neck.

A little grunt came from Zadah. He went down like a wet sack of flour. Casually Brady bent, picked up the gun, and pocketed it. His humorless eyes were without any hint of emotion.

"Time to go," he said. "Come along."

Silently the brothers followed Brady to the latter's plane. Without a word they took off, speeding south until the desert-stain of Azouad was lost beneath the horizon.

And not once, during the journey, did Captain Brady refer to the affair in which he had played Saviour. Tony, grinning to himself, remarked in an undertone, "There's no extradition from the Legion."

"Yeah," Phil nodded. "The devil protects his own."

Jimmy said nothing. He was too busy peering out at the rolling dunes and endless plains of the Sahara.

Sub-Sahara! Underground labyrinth —an oasis under a burning, lifeless expanse of wilderness! To the three Martells it was, at first, a relief, after the flaming heat of the desert. Though even in the beginning there was a feeling of oppression as the metal car sank down into its shaft and the weight of earth overhead was felt almost tangibly.

It seemed hours later when the car stopped and a panel in its bare side slid open. Pale radiance flickered in through the gap, lighting the men's faces eerily. The glow seemed to come from the walls itself.

"Phosphorescent paint," Brady said, nodding. "Saves trouble. We spray the walls and ceiling once a year, and it's bright enough for our needs. Come along."

The four stepped out into a passageway. It wasn't long. It ended before a metallic door; Brady took a rod from his pocket and held it briefly pointed at the lock. The panel opened.

Beyond the threshold lay a cavern.

Huge and dim and alien as a distant world it seemed, a gigantic hollow hemisphere in the solid Earth. It was, as far as Tony could judge, about two miles in diameter, with a jagged floor that had been cleared in a few spots. The dim light filtered down from the ceiling, as sunlight through heavy cloud. When Brady spoke, his voice was incongruous in this place of silvery soft grayness.

"There's the fort. Over there—" He pointed. "That's the entrance to the Coptic tunnels. We guard the entrance to the surface. Though the Copts haven't tried to make any surface raids for a long time." He swung out along a rough path, the others following. "They hate the Bedouins, just as the ancient Egyptians did. They don't especially dislike us, unless we get in their way. If the mineral deposits the Copts work weren't valuable, though, they'd be left to themselves. But the Legion's paid to make sure the mines are kept active."

Tony didn't answer. His eyes were slowly accustoming themselves to this strange light. He glanced up at a ceiling that was both visible and invisible. No details could be seen. A veil of shining cloud seemed to obscure the rock far above. The vault of a world, Tony thought. A world created here, perhaps, when the Sahara was a sea instead of a desert. What had Brady said a while ago? Something about a prehistoric, mighty civilization in antedynastic Egypt . . . and, far and far below, the Copts still worshiped Isis, in the hidden caverns of Alu where no white man had ever penetrated. "The wreckage of a civilization down there," Brady had said.

In this eery cavern-world it was easy to believe in almost anything. A scrap

of half-forgotten verse drifted through Tony's mind:

"But you have seen the hieroglyphs on the great sandstone obelisks,
And you have talked with Basilisks, and you have walked with hippogriffs . . ."

They were at the fort. Nothing could be seen beyond a palisade of strong, dully-gleaming metal. But a bell rang sharply; a gate opened, and a man in legionnaire uniform appeared.

Even in the odd light his face seemed strangely pallid—drained of all color, like bleached papyrus. He was gaunt and fleshless almost to the point of emaciation, so that his eyes and mouth were black hollows. It seemed as though a skull wore the rakish Legion cap atop its dome.

He saluted, and Brady responded.

"Hello, Jacklyn. Tell Commander Desquer I'm here."

JACKLYN stood aside to let the others enter. Tony discovered that within the palisade were a dozen metal shacks, prefabricated, and without sign of life. So this would be their home from now on!

Brady said, "Well? Didn't you—"

Jacklyn's voice was strained. "Glad you're back, sir. The commander left for the surface an hour ago. He got a message. . . . There's trouble, sir. The Copts—they've kidnapped Ruggiero."

Captain Brady looked at his fingernails. "It's full moon, isn't it?"

"Yes, sir."

"All right. I need four men. Completely armed. We'll leave as soon as they're ready."

Jacklyn hurried away. Tony asked, "Is this—the usual thing, down here?"

Brady shook his head. "No. At full moon the Copts choose a victim to represent Osiris. The Husband of Isis. Usually it's all done quietly, and the sacrifice is a Copt, of course."

Jimmy inquired rather weakly, "What sort of sacrifice is it?"

"Degenerate form of Egyptian religion. According to legend, Seth, the evil god, was jealous of Osiris. He put him to death, tearing his body into fourteen pieces. The Copts are . . . literal-minded."

Brady sucked in his breath. "I wish I knew more of their mythos. The ceremony glorifies Isis of the Moon. A Copt has always served before. But now . . ." He pulled at the clipped gray moustache. "Ruggiero has been taken to Alu to be sacrificed. This means trouble—plenty of it." But there was no fear in the sunken eyes; only excited anticipation. "Alu! The Land of Light!"

And suddenly Tony understood. For years Brady had wondered about the half-mythical cavern world below, a place forbidden to him by rigid rules. Now, in the absence of the commander, it was Brady's duty to rescue the kidnapped legionnaire. His duty—and his chance.

Tony said, "Let us go with you, captain. Eh?"

Jimmy and Phil exchanged surprised glances. Then Phil nodded. "Yeah! How about it?"

Brady hesitated. "You're untrained. You don't know the ropes—"

"We know how to handle guns."

"Carbon-pistols?"

"We can learn easily enough."

"Yes . . . they're simple. But—all right," the captain said with sudden decision. "You're new, and that means you're not scared stiff of Alu. The three of you and Jacklyn. Right!"

He bawled for the skull-faced man. "Jacklyn! Get equipment! I'm taking these three recruits. *Allons!*"

Tony grinned at his brothers. Their introduction to the Legion was to be exciting, after all—if not fatal!

CHAPTER IV

Sub-Sahara

JACKLYN said, "Fifty years nearly I've been here. It never changes. First time I've ever seen the Copts get out of hand. Sure, they'd try to get out once in a while to butcher the Bedouins, but they never had anything against us. Funny."

The group was marching swiftly through a dim tunnel, Captain Brady in the lead, the others trailing. They had been moving for an hour, in a labyrinth of passages through which the captain unerringly found his way. Now he looked back and remarked:

"That's right. I know this maze pretty well, but Jacklyn knows it blindfolded. He's practically a Copt himself. Hasn't been above ground for fifty years."

"You must like it here," Jimmy remarked.

Jacklyn said, very softly, "It's hell. You been in New York lately? Yeah? How does the old burg look now?"

"It's changed in fifty years," Phil said. "But you know that already."

"Times Square, though—that's there, eh? I remember I used to feel empty whenever I got out of the old town. God, I'd like to see it again—but not on a televisor. In fact," he went on slowly, "I'd like to smell fresh air again. Not this artificial ventilation. See starlight and green growing things."

"And the Sun," Jimmy nodded understandingly. He glanced at Jacklyn—and then caught his breath at sight of the expression on the legionnaire's pallid face. Horror—and hate!

It was gone immediately. Jacklyn ignored the remark. He said, "I was one of the first spacemen. There've been plenty of improvements since my time, what with liquid fuels instead of powder, and those new magnetic induced-gravity screens they're working on. But it's like shipping, I guess—steam or sail, it'll never really change. There'll be the sea under you, or space around you. We—"

"*Sh-h!*" Brady held up a warning finger. "Hold it!"

They paused, but no sound came. The captain relaxed.

"Thought I heard an explosion. Guess not. Well—by the way, are you sure you know how to use the carbon-pistols?"

"It's not hard," Tony said. He took out his weapon, resembling an oversized revolver with a cup-shaped hollow where the hammer should have been. From his pocket he withdrew a bit of coal, slipped it into the cup, where prongs held it firmly in place, and hefted the gun. "Not so easy to sight as a Colt, but the force-charge scatters, doesn't it?"

Jacklyn said, "Right. Watch the recoil, though. Ease the trigger-button down. And don't run out of coal."

"Funny," Tony remarked. "Coal doesn't seem much good in a pistol."

Captain Brady laughed a little. "The thing's based on atomic force—liberation of quanta, though I don't understand the scientific principles of it myself. Works only on carbon. Coal's carbon—and cheap. So, if the Copts get out of hand, we fight 'em with the coal they dig for us. Rather unfair, but it's all in the Legion's work."

"Practically everything is," Tony said dryly. "How much farther, captain?"

"We've been going down steadily—wait! Here's someone. Don't touch your guns unless I give the word."

Tony stared ahead. For a second he saw nothing; then abruptly the tunnel was filled with a dozen bizarre figures. Clad in skin-fitting garments of unfamiliar texture, white-skinned, with blue veins showing plainly through the flesh, the men's faces were aquiline and strong, with beaked noses and abnormally large eyes, in which the pupils nearly eclipsed the irises. The Copts' hair—they had none on their faces—was like bleached straw, tightly curled. They seemed unarmed, yet Brady's whole body subtly tensed as he stood waiting.

The foremost of the Copts, taller than the rest, and wearing a tapering headdress, came forward, hand lifted. He spoke in English.

"Captain Brady, why are you here?"

Brady said, "If any harm comes to a legionnaire, it will not be well with the Copts, priest."

THE man nodded. "I understand. That was a mistake. Some of our younger men—they have already been suitably punished for meddling in affairs beyond them. Your legionnaire is back in the fort, Captain Brady. You will find him there if you return."

Tony detected a half-veiled glance the priest sent at his fellows. Brady saw it also, and tugged at his moustache.

"You are speaking true words?"

"I speak true words."

"Suppose we do not believe. Suppose we—go on."

A stir shook the Copts; they looked at one another askance. The priest said, "The Moon passages begin not far from here. Those you may not enter."

Brady seemed undecided. "We shall go back. But if our man is not safely in the fort—"

The priest's smile was apparently guileless. "He will be there."

"All right. About face! *Allons!*"

Tony turned with the others. But before a foot was lifted there came an interruption. The priest's voice was raised in an urgent command in an unfamiliar tongue. He, with the others, had seen the bloodstained, tattered, huge figure that sprang out from concealment behind a rock.

"Kill those men!" a bull voice shouted. "Blast 'em down!"

"Commander Desquer!" Brady clipped—and then—

"Out guns!"

For from the ranks of the Copts a pale ray had lanced, striking full upon Desquer's bison chest, bared by a tattered tunic. Another ray touched Tony; he felt a wave of intolerable heat as he snatched out the carbon-gun at his belt.

Cr-rack! Brady's weapon snarled viciously, and the heat-ray left Tony. He slipped a coal-cartridge into the cup and triggered almost without aiming. The deadly little guns worked havoc. But there were almost a dozen Copts, and for a few moments the tunnel was a chaotic Maelstrom of battle, dominated by Desquer's deep voice roaring commands.

"Get them! All of them! Aim at their bellies!"

Smoke drifted away. The Copts lay in helpless huddles amid red stains. Tony lowered his gun and stared around anxiously. Jimmy was painfully rubbing his arm where a heat-ray had cindered the cloth. Phil was apparently untouched, and so was Jacklyn, but Captain Brady was rubbing his thigh and cursing quietly. As for Commander Desquer, it was impossible to judge whether he had been injured in the conflict. He was already wounded in a dozen places.

Tony's fascinated gaze clung to the

man. The mighty body was thewed like an auroch-bull, the matted, deep chest heaving convulsively with exhaustion. The commander's head was shaved, but nevertheless there was something leonine about his face. Shaggy, tufted eyebrows overhung glittering small eyes, and thick, sensual lips were pressed tightly together. Desquer reminded Tony, somehow, of a Nero or a Caligula—a degenerate Roman despot.

Now Desquer flung back his huge head in an arrogant gesture. "Jacklyn! See if the priest's got a healing-ray. We need it." As the legionnaire hurried forward the commander turned his eyes to the others. Tony felt a curious shiver ripple down his spine as the cold gaze touched him. Desquer looked long and intently at Tony, and not until he had stared equally long at Phil and Jimmy did he turn his attention to Brady.

"The fort's gone," he said. The Copts smashed it and massacred every man. They blew up the shaft to the surface just after I reached Sub-Sahara. I just managed to get away . . . the cavern's overrun with 'em."

Jacklyn came back with a small flat box, in which a lens was set. He touched a button and turned the lens to focus upon Brady's thigh.

"Thanks . . . up a bit . . . You know they kidnapped Ruggiero?"

DESQUER nodded "Yes. I found a Copt alone and induced him to give me a little information." He glanced at his hands, took out a small knife, and began to clean his nails. "What this means I don't know. A *jehad*—a holy war, possibly. Though it's without precedent."

The captain lifted his hand. "Enough, Jacklyn. Tend to the commander."

But Desquer shook his head impatiently. "No time." He drew Brady aside, as Jacklyn turned to the others. The two officers withdrew a few steps and lowered their voices.

Tony stared at the lensed box as Jacklyn used it on Jimmy's arm. "What the devil's that?"

"A gadget the Copts have. Nobody knows how it works. They don't themselves. It was handed down . . . it's a ray that increases cell activity. Builds up cell tissue. Prevents infection . . . how's that?"

"Swell," said Jimmy, touching his arm. "It still hurts a bit, though."

"It won't for long—"

Desquer said, "You three recruits—listen to me. We're going down. Into Alu. Jacklyn, you'll go for help."

The skull-faced legionnaire's body jerked convulsively. He stared at the commander.

"For—help?"

Desquer nodded. "Right. You know these caves. There are other openings to the surface. Get help. We'll hide out and wait for you. The Copts won't expect us to go right to their headquarters, so that's just what we'll do."

"But—" Jacklyn moistened dry lips. "I'll have to go to the surface?" There was a curious note of horror in his voice.

"Don't argue. Move! You'll have a better chance alone than with companions, so—*allez!*"

Jacklyn moved a pace away, stopped, and turned back. He said woodenly, "I can't go to the surface, Commander."

Desquer said very softly, "Why not?"

"Sunlight will kill me."

There was a little silence.

"Why?"

"I was space-burned. That's why I joined the Legion. It's a kind of

allergy, you know—I was so badly burned in space by direct solar rays that even filtered sunlight will kill me now in a few hours."

Tony felt his stomach move sickeningly. So that was why Jacklyn had remained in Sub-Sahara for fifty years. A prison with its mockery of freedom—

"Let one of the others go, sir!"

"I'll go," Jimmy offered — but Desquer snarled at him.

"Silence! You know these caves, Jacklyn—"

"The captain knows them!"

"He's badly burned. That heat-ray touched the bone. He couldn't stand a long trek. Here!" Desquer bent over the dead Copts and rapidly began to strip them of their garments. "If sunlight will kill you, stay out of it."

"In the desert?"

"Bandages, you fool — bandages! Wrap yourself up in these. Travel by night if you have to, after you reach the surface."

Silently Jacklyn began to don the garments. He said without expression, "It will kill me."

Desquer threw him an armful of clothes and grinned. "You'll live long enough to get help. If the Copts break out of Sub-Sahara, it'll be like rounding up a thousand fleas. Besides, I don't know what's back of this—but it's nothing small, I can promise you. If—"

He leaped like a panther. His shod foot came down with a sickening crunch on flesh and bone. Tony, startled by the sudden movement, saw that Desquer had sprung upon the Coptic priest, from whose hand a ray-projector had dropped. The priest's blood-smeared face, twisted in agony, lifted toward the ceiling as he cried out.

"Not dead, eh?" Desquer whispered, his voice taut with savage fury. "Well —you soon will be."

He drew back his foot. But the priest's lifted arm somehow halted him. The Copt dragged himself half erect. His thin voice shrilled, "Go down to Alu, fools! But you will be too late. Isis has risen—and with her the gods who dwell in Alu. Before the opening to the outer world can be cleared again, we shall have triumphed—and the Earth will tremble before the power of the Ancients! Aye—the Ancients who ruled over the Four Rivers before their sons fled to Egypt!

"Go down to Alu, fools! *You shall find death!*"

The priest fell back—and died.

CHAPTER V

Five Against the Gods

HOURS had passed. The legionnaires, headed by Commander Desquer, were encamped by a small, rocky inlet on the Midnight Sea, a fathomless lake of inky water that stretched beyond the limit of vision. A pallid glow came from the cavern roof far above, rippling over the surface of the tideless, sluggish sea. It was a scene fantastic almost beyond belief, and Tony, on guard at the mouth of a crevasse where the others slept, could scarcely realize that he was still on Earth, and not beneath the surface of some alien world.

They had come far and fast, slipping stealthily past the guards the Copts had posted, taking advantage of every unused tunnel, guided more by instinct than by knowledge. The city of the Copts they had skirted, descending ever deeper to the forbidden gates of Alu. And now, on the shore of the Midnight Sea, they were ready for the plunge into the unknown.

"We can't stay here," Desquer

grunted. "They'd find us sooner or later. But in Alu we have a chance. The element of surprise will be on our side, at least."

He was right, Tony knew. He shifted uneasily, glancing at the carbon pistol and checking its load. His thoughts went back to New York, and the civilization of a world that seemed a billion miles distant. A world lost to him—and his brothers—forever. And in exchange they had gained—this!

A hand fell on Tony's shoulder. Desquer said, "All right. We're marching." The commander's heavy jaw jutted as he stared out over the water.

The others appeared one by one, ragged, disheveled, and unshaved. Brady was wincing with the pain in his stiffened leg as he walked. Jimmy's face was haggard; he had not the stamina of the others. But Phil seemed as sturdy and untroubled as ever.

Desquer turned; his cold eyes took stock of his command. "All right. March!"

He led the way, Brady behind him. The brothers followed. Tony caught a wink from Phil, and lagged behind somewhat, till the officers were out of earshot of a whisper.

"Yeah?"

Phil's hand touched his tunic pocket. "Somebody searched me while I was asleep. I thought I was dreaming, but when I woke up, this pocket was unbuttoned."

Tony's eyebrows lifted. "Oh-oh!" He squinted ahead. "Who—"

"Dunno. But — somebody. Just thought I'd tell you. We'd better keep our eyes peeled after this."

Phil exchanged a meaningful glance with Tony and increased his pace. The latter frowned, trying to figure out what this new development meant. The Earth Star? It was scarcely probable that anyone in Sub-Sahara would know the details of the theft and its aftermath. More likely the motive was merely petty robbery—unless, indeed, Phil had actually dreamed it. But in his heart, somehow, Tony sensed impending danger. The baleful fires of the Earth Star still burned far below the surface of the planet.

Desquer? He could scarcely know anything of the jewel. Brady? Perhaps the encounter with Zadah, the Rajah's secretary, had aroused the captain's suspicions. Or—Jimmy? Was he searching for the Earth Star, trying to learn which of his brothers carried it? That might have been more plausible had not Jimmy kept insisting, with his brothers, that he himself had stolen the gem.

TONY'S face did not change, but his hand touched the butt of the carbon-pistol. He felt safer with the weapon at his thigh. For a time he plodded on, every sense alert for sign of danger. The immediate peril was from the Copts, of course.

None of the underground race appeared as the group skirted the Midnight Sea. They came at last to a tunnel mouth where Desquer paused, hesitating, to confer with Brady. The latter pointed to a sign cut out of the rock above the entrance—a full moon surmounted by a crescent.

"Moon and sistrum," the captain nodded. "This is one of the forbidden gateways. A door to Alu."

Desquer grunted. "Very well. Come along. Watch out for traps."

They entered the tunnel. It was darker, though a vague illumination filtered from the walls and roof, due, perhaps, to some sort of radioactivity. The passage slanted down steeply. It was apparently little used, and in spots almost blocked by debris, where the le-

gionnaires had to crawl through painfully. Desquer's bull strength came in useful there. The giant commandant was untiring, and there came a time when he was almost carrying Brady along as the captain's weak leg grew weaker.

"Wonder if Jacklyn will make it," Jimmy muttered to Tony.

"God knows. If he doesn't, we're in the soup."

Phil grinned. "What if he does? We're still in Alu!"

The tunnel grew steeper. Now half-obliterated carvings were visible on the walls, symbols that bore the trace of immeasurable antiquity. One sign puzzled Tony; it was a cross within a circle. It reminded him, somehow, of the dying Coptic priest's words—" . . . the Ancients who ruled over the Four Rivers before their sons fled to Egypt." The circled cross struck a chord of memory in Tony's mind, and he knew, somehow, that the cross was supposed to represent four rivers. But—try as he might—he could recall no more.

There were other carvings, most of them showing the sistrum and the lunar disk. They had been cut out of the rock, Tony felt, long before the Pharaohs had reigned in Egypt, before the uraeus crown had come to represent a dynasty. A little chill touched Tony as he thought of the endless centuries that had ravaged the world above and left the road to Alu untouched.

Before Egypt—a civilization. And in Alu—*what?*

No premonition troubled Commander Desquer. His great frame marched on untiringly, practically carrying the exhausted Brady. Down and down they went. Tony's legs began to ache, and Jimmy was drooping with fatigue. Phil's stolid face showed no emotion, but there were lines of strain about his mouth.

Down—and down! Into Earth's secret heart—into the forbidden land. And what caused Tony the most uneasiness was the fact that they went on unchallenged. Perhaps the Copts had not discovered the intruders. Or, perhaps, the Copts knew that there was no need to guard the road to Alu.

Occasionally Tony would intercept a glance from Desquer, who would impartially stare at the three brothers as though in puzzled curiosity. But the commander said nothing, till at last they came out in a large cavern from which three tunnel-mouths opened, besides the one on the threshold of which they stood. Desquer paused, his gaze searching.

"We'll camp here," he said shortly. "In the middle. That way, our retreat won't be cut off if the Copts find us. That middle passage is our road. Eh, Captain?"

Brady nodded. "Yes. The Moon and sistrum is over it."

In silence the five moved wearily to the center of the cavern and dropped rather than relaxed on the rock floor. They were tired out. Desquer alone sat straddle-legged, his gun ready in his hand, icy eyes flashing about.

"Sleep," he said. "I'll guard."

Tony gratefully obeyed. Stillness closed over the cave. But—it was broken.

VERY faintly, as though from an infinite distance, came a rhythmic chanting. Muffled and scarcely audible it whispered, almost below the threshold of hearing.

Brady's breath hissed between his teeth. "Hear that?"

Desquer said, "Well?"

"The Chant of Set. Somewhere they're beginning the ceremony of Osiris, where they'll sacrifice Ruggiero."

Tony said, "That's where they tear

the victim into pieces, isn't it?"

"Yes. Commander—" Brady didn't finish. One look at Desquer's grim face was enough.

"Don't be a fool, captain. Get your rest—and the rest of you, too. You'll need it. You know well enough we can't rescue Ruggiero."

That, Tony thought as he relaxed, was true; but nevertheless he had a curiously unpleasant feeling at the base of his spine. Somewhere amid these caverns a white man was being horribly sacrificed, and it was not a thought conducive to sound sleep. Yet Desquer was right. The legionnaires' only chance was to remain hidden . . .

Once Tony roused sleepily to find the Commander lying down and Captain Brady on guard. Brady was wandering about the cavern, staring up at the carving of the Moon and sistrum. He was a gaunt, scarecrow figure in the dim light. As Tony drifted off again to sleep he realized that the faint chanting had grown louder—

That it was different now in tone—triumphant!

And then Desquer was shaking Tony's shoulder, his hand pressed over the legionnaire's lips. The commander's eyes were glittering brightly.

"Sh-h! Not a sound! Rouse the others."

Silently Tony obeyed. There was no sign of Captain Brady, he realized.

On cat feet Desquer led the three into the tunnel. Hidden by the first turn, he whispered, "Brady's gone. When I woke up—"

Jimmy asked, "What happened to him? The Copts?"

"Perhaps."

"But wouldn't they have killed us, then?"

Desquer passed a hand over his shaven head. "Not necessarily. They may have other plans." He smiled, not pleasantly. "So Brady's gone. That leaves the four of us." There was an oddly secretive look in the cold eyes. "Come on. We're still heading for Alu."

"What's the use?" Tony asked. "If the Copts have discovered us—"

"They may not have. Brady may have gone off to try and save Ruggiero. I doubt that, though—but we mustn't overlook any chances. Alu is our destination. So—*allons!*"

The three brothers exchanged glances. One by one their number was being cut down. First the entire garrison of the fort; then Jacklyn; now Captain Brady. Tony felt a twinge of sympathy for the weatherbeaten old soldier. Whatever had happened to the man, Brady would have gone down fighting.

"He didn't try to warn us," Jimmy muttered.

Desquer grunted. "We don't know all the weapons of those Copts. Where they get them God knows. Every once in a while they'll pop up with some super-scientific device far beyond their power to manufacture. It's a mystery. Maybe we'll find the answer in Alu."

That, to Tony, was a strange paradox. A search amid the ruins of a forgotten past for the super-science of the future. And yet—whence had come the mighty civilization of Egypt? What mystery lay behind the cryptic powers of the Copts?

There could be no answer, as yet. The four men marched on, down into the depths. They were beneath the Midnight Sea now, Tony decided, since the tunnel had curved in a long loop. Not only beneath the Sahara Desert, but under a sunken sea as well.

ENDLESSLY the road stretched before them. But the end came unexpectedly. So exhausted were the

four that they scarcely realized that the silvery radiance of the tunnel had given place to a reddish glow, brighter and reminiscent of volcanic activity. Desquer lifted his hand in warning. He went on to reconnoitre, and presently beckoned the others. His burly figure was rigid, Tony saw.

And, as he went on, he saw something else. The tunnel ended. It opened upon a cavern.

A cavern that was a world!

A world beneath a desert and a sea! Alu, the Land of Light, lay before the adventurers, and human eyes had never gazed upon a stranger sight. A metropolis of antiquity, with the wrecks of mighty buildings and fallen pillars strewing the flat floor of the cave. It was like Pompeii, and far older than Pompeii. It was grander than Karnak, more alien than crumbling Angkor-Vat. In the distance a pyramid rose toward the roof of the cave—touching it, supporting it as the fabled tree Yggdrasil is supposed to support the Earth.

Red light flamed from beyond the pyramid.

Alu! Old beyond imagination, cradle of a race that had ruled long and long ago! Alu, which the Egyptians had incorporated into their mythology as their heaven.

The sheer, overwhelming majesty of the panorama struck the men dumb, as a hand might strike an impious lip. Huge and desolate and dead the lost world stretched before them, holding its secret fast, as it had held it since before the Pharaohs reigned. No wonder the pyramids were a mystery—built by some alien science. The same science that had reared the colossal structures of Alu!

A hundred feet away a square white marble building towered, Doric pillars on either side of its open gateway. Some indefinable urge drew Tony's eyes to it.

Desquer said, "Hear that?"

The others listened, but detected no sound. The commander grunted.

"It came from that temple. Get your guns ready. We're going in. If there's trouble, shoot first."

The four moved softly across the flat rock of the floor. Halfway to the door of the building Jimmy clutched Tony's arm. He pointed, his face chalk-white.

"Look at that!"

Tony followed his brother's gaze, as did the others. Far away were two structures connected by an arched span. Across this span figures were moving.

Figures with human bodies—but inhuman heads!

At the distance it was impossible to make out details, but it was plain that there was something definitely abnormal about the beings who walked across the span. They moved in stately file and were gone. Jimmy whispered:

"Remember what the priest said? The gods live in Alu!"

Tony thought of the Egyptian gods, men with the heads of beasts and birds and reptiles. Could some monstrous hybrids have survived in this cavern? He shrugged off the thought.

"Masks, Jimmy! Don't be an idiot. Come on."

Desquer urged them toward the square building. "Quick! We can hide here, until we know more about this place. Keep your guns ready."

The commander's icy eyes were searching the gloom of the temple as they crossed the threshold. The symbol of Osiris, sign of the horned bull, was carved everywhere. Crumbling, broken pillars made the interior of the temple a labyrinth. The floor was littered with smashed blocks of stone.

It was very dim here, but one ray of red light flamed like a sword-blade through a gap in the wall and fell directly upon the throne that stood on a dais at the farther end of the room. Tony and the others looked down a long aisle toward the throne and the statue upon it—the statue of a man, clad in stylized flowing robes, with the head of a bull upon the human shoulders.

"Come on!" Desquer whispered. He gripped his gun. Tony felt the butt of his own weapon cold against his palm as he walked on. The approach to the dais seemed endless. Incredible journey amid the wreckage of a forgotten civilization! So might a lost soul have journeyed to Osiris . . . A scrap of verse came unbidden to Tony.

"Ten hundred shaven priests did bow to Ammon's altar day and night,
Ten hundred lamps did wave their light through Ammon's carven house—and now
Foul snake and speckled adder with their young ones crawl from stone to stone
For ruined is the house and prone the great rose-marble monolith!"

Desquer stopped. His figure stood rock-still for a moment. The gun swung up, aimed at the statue on the throne.

And now Tony saw what the commander had already realized. It was no statue that faced them. The being was alive!

CHAPTER VI

Before the Gods

ONLY one thing could have stopped Desquer's finger on the trigger—and that thing happened. The monster on the throne spoke. Thick and almost unintelligible, its voice poured out from the inhuman muzzle, as the hands twitched on the arms of the throne.

"Don't!" the bull-headed creature moaned. "It's Brady –Brady!"

Sheer amazement petrified Desquer. He lowered his gun at last, shaved scalp shining with sweat. Tony swallowed a lump in his dry throat, glaring at the hybrid on the dais.

Brady? Captain Brady?

"Those devils did this to me," the thick voice went on. "Surgery, commander — super-surgery. Remember their healing ray? They grafted the flesh and skin of a bull on to my head and speeded up the cellular activity tremendously with their ray. I—I don't dare move. This head is so heavy it would snap my spine if—if—"

Desquer said in a low voice, "Are we in danger now?" His eyes searched the shadows.

"You're doomed," Brady mouthed. "Thotmes told me the hellish plan behind all this. Thotmes is the high priest. He's one of the very few that know the secret of Alu. He told me—almost everything. It tickled his ego, I think, to gloat over his triumph . . ."

The bull head lolled forward and came back into place again abruptly. Brady said, "Maybe there's a chance. I don't know. Your guns . . . Listen! If you can get to the pyramid and blast the machine out of existence—"

"What machine?" Desquer asked.

"The machine that will destroy Europe! The same kind of machine that created Earth's Moon, ages ago! The machine that sank Atlantis!"

Tony's breath caught in his throat. Atlantis? Now he remembered the significance of the sign of the cross-and-circle. It was the symbol of Atlantis, the four rivers on the island continent. Softly he whispered, "The An-

cients who ruled over the Four Rivers before their sons fled to Egypt."

Brady said, "Yes. That's the secret of Egypt, and its civilization. Men have guessed at that before now. Ages ago, when Europe was filled with nomadic tribes, Atlantis was a continent of culture and science. It was unstable —volcanic activity went on endlessly beneath it. And the land began to sink. Thotmes told me how the scientists of Atlantis planned to prevent their doom.

"They made a Moon. Out of the bed of the Pacific Ocean they tore part of the Earth and sent it driving out into space. They thought that would release the pressure under Atlantis and save their civilization.

"They failed. The forces they controlled were too mighty. Atlantis sank, taking with it a science such as the world has never known and perhaps may never know again. But before the deluge, a few Atlanteans fled eastward, through the Pillars of Hercules, to Egypt."

The bull head nodded. "They were the ancestors of the underground Copts. They found Sub-Sahara centuries before the Pharaohs, and they found Alu. There they built a city such as had existed in the Atlantean valleys. They sent forth some of their number to civilize the Nile peoples, and those Atlanteans became the high priests of the gods. They created the gods!

"As they created me—they made gods with heads of bulls and crocodiles and jackals, to terrify the superstitious tribes that needed tangible gods to worship. And then the road to the surface was closed by some ancient cataclysm, so that the Atlanteans were trapped here. Some few of the priests kept their culture. The others degenerated. They became—the Copts.

"But the priests still kept the old religion alive, using their surgery and their healing-rays to make new gods, and ruling the Copts through fear. Now they plan to make a second Moon, and to raise Atlantis; they wish to rule the Earth as they did once, long ago."

Brady's thin hands clenched into fists. "They caught me in the cavern where I was standing guard—used some sort of paralyzing ray on me. They brought me down here and told me what they intend. There's a machine that's capable of ripping all Europe from the face of the Earth and sending it out in space, to be another Moon."

Tony said, "But that would wreck the world!"

"That is part of their plan. They have lost all their science, possessing only a few machines and devices that have come down since the days of the Atlantean exodus. And these are gradually losing their power. In sunken Atlantis Thotmes and his followers can find weapons and secrets that will enable them to rule the world. But first they plan to make another moon—to destroy Europe—and to wreck most of the Earth with quakes, tidal waves, and storms. They'll be safe here in Alu. They'll emerge after the Atlantic has drained into the great abyss that will be left by the destruction of Europe, and they'll return to Atlantis, west of the Canary Islands."

"A machine to make a Moon!" Desquer's voice was almost scornful. "Unbelievable!"

"It was done once. The principle is that of vibration. A file of men marching in unison can shake down a bridge —you know that. The right vibration can wreck a building. Sonic waves can disrupt the molecular framework of the Earth, and Thotmes has a machine that can be focused *through* the body of the planet. There will be little

temblors in Europe at first, then heavy quakes. They will grow stronger. And finally the entire continent will be ripped away, and centrifugal force will carry it out to its orbit. Thotmes explained it in detail . . ."

THE bull head jerked forward suddenly. There was a sharp, brittle snap. And, slowly, the body of Captain Brady leaned and bent. It toppled.

Desquer sprang forward with a curse. He touched the monstrous muzzle, jerked his hand away, and then felt for Brady's heart-beat. After a moment he shrugged.

"Well, he told us enough. Now . . ." The commander stood up, his gaze traveling slowly from face to face. "Now we must find that machine and destroy it—eh?"

He seemed vaguely displeased when the three brothers nodded as one. But his words were commonplace enough.

"We need information. *Bon.* First, we must find someone who can supply it. Preferably this Thotmes—but we cannot pick and choose, I suppose."

Jimmy said on impulse, "You believe Captain Brady's story?"

For answer Desquer waved his hand around. "Look at this. No modern civilization built it. I've lived in Sub-Sahara for a long time, and—well, at least I'll verify the story before I act. Let me remind you that it is not your business to ask questions." His cold gaze held the youngster.

Tony said quickly, "I'll get the information, commander."

Desquer nodded. "Very well. I need tell you nothing you do not already know. Most of the Copts know English; if not, bring your captive back here. We shall wait."

Tony looked once at the sprawled, terrible body that had been Captain Brady, waved casually to Phil and Jimmy—and went out. Along the shadowed aisle of pillars he hurried, pausing only when he emerged from the temple. There, crouching in the dimness, he paused, looking about.

There was no sign of life. In the distance loomed the tunnel mouth by which they had entered Alu. Tony slid along the side of the building and peered gingerly around the corner. He could see the arched ramp along which the "gods" had passed, but it was vacant now. What was the logical course to pursue?

The lost city stretched about for miles, an apparently tenantless ruin. Yet it was peopled, Tony knew, by Thotmes the high priest and his servitors—perhaps by Copts, though probably not, since the latter were confined to their own city above. At the thought Tony involuntarily glanced up. Beyond the cavern roof was the Midnight Sea, above that the Coptic city, and still further above, Sub-Sahara itself. The weight of innumerable tons of Earth pressing down on him was almost suffocating. However—

Tony shook off the feeling and set out at random, after taking careful bearings. He had a compass, but it was useless in this environment, as he found after brief experimentation. But he could gauge direction fairly well from the great pyramid, which was visible from almost any point in the city of Alu.

He kept in the shadows, which were concealingly dark where the flickering red light did not shine. What caused that volcanic glow Tony did not know, though he hazarded a few guesses. He went toward the pyramid.

It was a metropolis of the dead. Eons ago it had been inhabited, by the survivors of sunken Atlantis, but now only the dust of ages filled it. Silence,

and everywhere the symbol of Isis, Moon-goddess, carved upon the stones. Silence . . .

The pyramid drew nearer, and Tony was amazed anew at its hugeness. It towered up and up to the very ceiling of the cavern, seeming to support it like a pillar. Perhaps it did—he could not tell. But as he came closer he saw that the pyramid was hollow, for there were lighted embrasures here and there in the sloping expanse of its sides.

And still there was no sound, no movement, no trace of life.

Tony grew more cautious, though there seemed no need. An arched opening loomed in the side of the pyramid near him, and he slunk toward it watchfully. No guards were posted. He hesitated near the threshold. Should he take the risk of entering what might be a stronghold of his enemies? To search the deserted city was seemingly a vain task, and, shrugging, Tony walked boldly toward the opening. But his gun was in his hand, and a coal-cartridge in its cup, ready for instant use.

A PASSAGEWAY sloped upward within the pyramid. It was lighted dimly by gleaming bars like neon-tubes that ran the length of the ceiling. In the vague glow Tony went stealthily on.

The corridor was featureless and without doors—at first. But, suddenly, he noticed what had at first evaded his attention, a series of panels set in the walls. The secret of their locks was beyond him, until at last one seemed simpler than the others. Tony pressed a spring that was not too deftly hidden—and the panel opened.

He looked through metal bars into a great cage.

Briefly he thought of a menagerie, and then went sick and dizzy with nausea. This was, indeed, a "zoo"—but it did not hold animals. It held—gods!

The artificial monsters created by Thotmes and his servants roamed within the cage, men with the heads of teratological mythos. Here, indeed, were the gods of Egypt, jackal-headed, ibis-headed, bull-headed, even some with the heads of crocodiles set hideously upon the human shoulders. So brightly lit was the cage that the beings did not see Tony, and he drew back swiftly, closing the panel. Obviously he could get no information here. He suppressed a strong impulse to use his carbon-gun to put these pitiful beings out of the unending nightmare of their existence. If this was a sample of Thotmes' power, it would not be well for the Atlantean to rule over Earth!

Tony went on along the corridor. From his slight knowledge of Egyptology, he knew that not all of the gods were malevolent, like Set. Both Osiris and Amon-Ra were benevolent, and so, indeed, was Isis. Perhaps in the beginning the whole religion had been a good one, and had become decadent and degenerate with the passage of ages in this hidden cavern-world. The obvious parallel was Satanism . . .

Yet this wasn't a question of superstition. It was one of logic and science, of cold facts in which the mythology of a race had been rooted. Behind the veil of so-called "magic" lay an alien and powerful culture, born in Atlantis long before Ur and Akkad had risen in Sumeria, along the Tigris and Euphrates.

On and on Tony went, a cold uneasiness rising within him. No one appeared to bar his path. More than once he glanced at the carbon-gun—but he was unprepared when the floor dropped beneath him, and he fell, writhing and twisting, into darkness.

He landed heavily on a hard surface, and went down with a grunt and an oath. Before he could rise, he felt the weight of muscular bodies upon him. Handicapped by the darkness, he fought doggedly, but the gun was torn from his grasp almost at the outset of the struggle. He was not in complete blackness; there was a vague dim glow, but Tony's eyes were not conditioned to it, as those of his enemies were. At last he lay prostrate, held motionless by iron hands that gripped him.

A deep voice murmured a command. The light grew brighter. Tony blinked, staring up from his position spread-eagled on a stone floor. He discovered that he was in a bare chamber, with a barred door of metal grating set in one wall. Five strong-thewed Copts held him—but almost immediately Tony saw that they were not Copts. Their faces lacked the degeneracy of the underground mining race. They were cruel instead of stupid. Cruel—and arrogant, proud! Proud with the knowledge of a culture that stretched back into the mists of a lost antiquity.

One man stood against the wall—and he was a giant. He wore a short spade beard, and soft, glossy black hair fell in curled, oily ringlets about his face. He was handsome with the beauty of a sword-blade, strong and powerful and deadly, and his beaked nose was hooked like a scimitar. Pale blue eyes watched Tony unwinkingly.

IN not-quite-perfect English, he said, "I am Thotmes." Tony could not repress a slight movement, and the blue eyes narrowed; but the priest merely smiled. "You know me? That is strange. Perhaps you have spoke to . . . Osiris!"

He nodded to the priests, who relaxed their grip on Tony. The legionnaire sprang up, but made no hostile movement. He stood silent, watching Thotmes.

The Atlantean stroked his beard. "You are wise. This will be your prison, and, if you cause no trouble, you can live for a time. We do not murder unnecessarily."

"Only nine-tenths of the world's population," Tony said gently.

"That," Thotmes smiled, "is necessary. We are a handful, against billions. Not even the powers we shall recover from Atlantis would enable us to conquer Earth—unless Earth is already conquered, her navies and aircraft and weapons smashed by cataclysms."

"You actually expect to make a second Moon?" Tony's voice held skepticism. But the priest was not offended.

"Yes. Such a thing was done once before. The machine that made the Moon was built in Atlantis, and we have built a duplicate here. It took centuries, but at last it is finished. In the heart of the pyramid it lies—and already it is in operation."

"In operation?" Involuntarily Tony glanced around. "I don't—"

"You feel nothing here and now, of course. Later you may, though we are safe in Alu. The machine sets up vibration and molecular disruption in certain strata under Europe, and gradually the intensity of the vibration will be increased—until Europe shakes itself literally to pieces. In a week or even less the final cataclysm will take place. Europe will vanish, leaving an abyss into which the waters of the Atlantic will pour. And Atlantis will rise again!"

"That," said Tony, "will be Old Home Week, eh?"

Thotmes didn't answer. He turned to the others and gestured. One of them slid open the barred grating, and the group filed out. The door slammed.

Beyond it, Thotmes smiled at his captive. "Your companions will join you soon. We shall not trouble to search for them. They will walk into our midst soon enough, and then you will have company."

"Look out you don't get your head blown off by one of them," Tony remarked.

Thotmes lost his smile. He tugged at his spade beard and said, "Few men jest in Alu. There is always a need for new gods—and you would look well with a jackal's head on your shoulders."

"You'd look lovely with a rat's," Tony agreed, "only you already have one."

The high priest said something indistinguishable, glared and departed. Tony was left alone. He shrugged and took stock of his possessions.

He had been searched completely. His pockets were empty. Carbon-gun and coal-cartridges had been taken from him. He had no tool by which he might leave the cell.

On the other hand, there might possibly be a concealed panel somewhere. It took an hour for Tony to convince himself that none existed. Finally he sat down and waited. There was nothing else to do. He had got the information for which he had come. The machine of the Atlanteans was in the heart of the pyramid. But he was unarmed, and had no way of conveying a message to Desquer or his brothers. Briefly he wondered what was happening to Phil and Jimmy, and how long they would wait. And when they got tired of waiting—what would they do?

What could they do—trapped in Alu, city of science and fathomless antiquity? Four men, Desquer and the brothers, against the mighty powers of the greatest civilization Earth had ever known. Four against the might that had made Egypt an invincible empire.

Four against the gods!

CHAPTER VII

The Might of Atlantis

A THUMP from above brought Tony from his crouching position to stand rigidly erect, gaze riveted to the ceiling. He was in time to see a section of it swing down on hinges, letting the body of a man, with arms and legs flailing, drop into the prison. Tony sprang forward, breaking the man's fall. It was Phil.

Phil's blond hair was disheveled, a stubble of yellow beard on his face; but his stocky body was as steel-muscled as ever. He still gripped the carbon-gun he had been holding, and his eyes met Tony's with relief.

"You okay?"

"Yeah." There was no need for more, so deep was the understanding between the brothers. Tony said swiftly, "Anybody after you?"

"Didn't see anybody."

"Took 'em by surprise, perhaps. But they'll be along. We've got to work fast while we've a chance of getting out of here." He glanced at the barred door. "We could blast out there with the carbon-gun, but I don't know the road. Hop on my shoulders, kid. We're going out through the ceiling."

Phil handed his brother the gun and climbed deftly onto Tony's shoulders as the latter knelt. Slowly he rose, steadying Phil with one hand.

"Got—got worried about you when you didn't show up. I went after you."

"See if you can open the panel . . . Jimmy all right?"

"He's okay. The kid's pretty tough . . . Got it!"

The hinged panel slid down as Phil's stubby fingers closed over the edge of

the opening. Tony heaved up strongly. For a second Phil hung there; then his body wriggled up, and his weight was gone from Tony's shoulders.

Simultaneously a cry came from beyond the barred door.

A pale ray lanced out. Tony felt a twinge of agony in his side. Involuntarily he flung up the carbon-gun and fired. The metal door vanished in a blaze of white fires. Whoever had been beyond it had also disappeared without trace.

But there were others coming. Tony traded shots with them. He heard Phil's voice and risked a glance up. Phil was lying flat, his arm extended down.

"Jump for it!"

"Can't," Tony said. "They'd wing me . . ."

"You've got to. I can hear them coming up here, too."

"Beat it. Get back to Desquer. Tell him the machine's in the base of this pyramid. I'm going out this way; there'll be a better chance of one of us getting through if we take different routes. Beat it!"

There was a pause, punctuated by the snarl of the carbon-gun. Then Phil said, "Okay. Luck!"

His feet scraped on the stone above. The panel slammed shut. Tony made a wry face, realizing that Phil was unarmed. But he had a better chance of escape than Tony himself, for a dozen or more of priests was blocking the passage that led—perhaps!—to freedom.

Tony fired again. The foremost of the priests went down, and the others hesitated. The gun crackled savagely. One priest broke and fled—and the others followed.

TONY hurried after them, every sense on the alert. The passage was apparently bare, and silent save for the dying thump of flying feet; but he guessed that there might be traps. Would this road lead to escape? And —had Phil escaped safely? There was no way of knowing—yet.

The passage stretched empty before Tony. He gripped the gun, feeling in its cold metal a reassurance against even the danger of Thotmes and his powers. There was no limit to the weapon's potentialities. The stronger the charge, the more effective the results. With a powerful enough change, Tony thought sardonically, he could bring down the whole pyramid. Unfortunately he had no ammunition, save for the clip in the gun's butt.

At a side passage he hesitated, realizing that the new tunnel led up. The priests would not expect him to take this path—so he did so. And, as it turned out, he was wise.

He came out on a little balcony overlooking the sloping ramp of the pyramid. Beneath him the massive piles of masonry fled down like gigantic steps, and Tony hesitated as he glanced down. A noise from behind him, along the passage, helped him make his decision.

It was almost too late. A priest burst into view, mouth open in a soundless scream, raising a short metal rod in one hand. Tony flung up the carbon-gun and squeezed the trigger. Nothing happened.

The ammunition was exhausted.

Tony's reaction was involuntary and instinctive. He flung the gun straight at the priest's face and ducked, diving in at his opponent. A beam of light lanced out over Tony's head. Then he crashed into the priest's knees and brought the man down heavily.

There was no time for ethics. Tony struck low and hard. He left the priest unconscious and vaulted the balcony's rail. Down the slope of the pyramid he

"Don't move! Not if you value your lives!"

sprang, leaping along the huge steps made by the giant blocks, risking his neck at every jump. But—he made it.

Once at the base of the pyramid, he was comparatively safe. Out of the red glow the shadows were heavy, and Tony took advantage of them to slink away toward the wall of the cavern he could see far ahead of him. But before he did so he made a brief scouting trip, hoping to find Phil. It was useless. Either Phil had already made good his escape, or else he had fallen victim to the priests of Thotmes.

There was no sign of excitement. Tony wondered why. Perhaps the escape of prisoners was of little importance to the Atlanteans. They were too self-confident—with good reason, it might be. Science that could rip the Earth asunder was not easily to be conquered.

Near the door of the Temple of Osiris Tony quickened his pace. The sound of hoarse breathing and shuffling footsteps came to his ears. On the threshhold he hesitated, staring, but saw nothing in the dimness of the interior. Wait! Far down beneath the dais were two motionless bodies. One was that of Captain Brady, of course. But the other—

Tony broke into a run. Yet he retained caution enough to move as silently as possible, though he could hardly repress a shouted question. Had the Atlanteans found the intruders in Alu? Was the body that of Desquer, or—Jimmy?

It was neither! Tony stumbled over a carbon-gun, snatched it up in one motion, and simultaneously saw that beside the figure of Brady lay Phil, unconscious and bloodstained, red fluid seeping from a gaping hole in his chest. But Tony could spare only one glance at his brother. Beside him, between the pillars that towered to the roof, two men were locked in conflict—Jimmy and Commander Desquer!

JIMMY was getting the worst of it. He was weaponless and trying to hold on to the hand in which Desquer held his gun. The commander was slowly breaking his opponent's grip. No expression showed in the Legion officer's face, but his eyes were black and deadly as wet velvet. Jimmy was gasping and bleeding from a cut over one eye, almost exhausted.

Tony said, his voice like a whiplash, *"Drop that gun, Desquer!"*

The commander's reaction was unexpected. All in one swift motion he released Jimmy and flung himself back. Hidden in the shadow of the pillars, he fired at Tony.

The shot missed. Tony lifted his own weapon—the one Jimmy had apparently dropped—but Desquer was fleeing, dodging in and out like a phantom. Why the devil—! Then Tony knew why. Desquer was no coward. But, on the other hand, he was no fool. He had run out of ammunition. A cartridge belt on the floor, its buckle torn off, explained the reason. In the fight Desquer had lost the belt.

He vanished through the door of the temple and was gone. Tony stared at Jimmy. "What the hell?"

The boy was white and gasping. "Phil got back. He'd seen you in the pyramid—told us where the machine was. But he'd been wounded—"

"Yeah. Keep talking, kid." Tony was kneeling beside the unconscious form of Phil, rendering such first aid as he could.

"Desquer sent me outside to keep guard. I heard Phil yell, and came running in. I was just in time to see Desquer—" The boy swallowed. "He killed Phil, Tony. Shot him through the chest. I tried to stop him—and then you came in."

Phil's eyelashes flickered. Tony gave Jimmy the gun. "Okay. Run along and keep guard again. Watch out for Desquer. If he shows up—"

"I'll use the gun." There was deadly grimness in the young voice. Jimmy's hand closed over the weapon; he hurried off down the dark aisle.

Phil was looking up at his brother, a wry grin twisting his lips. "So you got out of the pyramid too, eh? Good."

"What happened, boy?" Tony was futilely trying to stanch the flow of blood.

"Nothing much. Desquer didn't bandage me up after I got here. He searched me, instead. Found nothing, of course. But—he asked me where the Earth-Star was."

There was a little silence. Tony whispered, "How—"

"I don't know. Desquer found out something. He's a f t e r the gem. Thought I had it, and when he couldn't find it on me, he tried to make me talk. His m e t h o d s weren't very—nice. That's when I yelled, I guess. I jumped at Desquer. Found out I wasn't as badly wounded as I'd thought. He shot me through the chest."

Phil coughed. "Might as well stop trying, Tony. I'm the first of us to go. I've a hunch there'll be another. But one of us three ought to pull through."

"I'll get Desquer," Tony said very softly. His thin, dark face was a grim mask of copper.

"Thanks. And keep an eye on the kid, will you? I—I—" A gush of blood came from Phil's mouth. He coughed rackingly. Tony hurriedly ripped off his shirt to improvise an additional bandage.

But it was useless. Ten minutes later Tony stood silently beside the body of his brother, looking down at the stolid features, relaxed utterly now in death. The shadows of the temple of Osiris pressed in heavily. It was, in a way, fitting that death should have come for Phil in Alu, the asphodel land where Egyptians thought the souls went to roam endlessly.

Tony turned and walked slowly along the aisle. At the threshold of the temple he turned and looked back. Phil would rest there forever, perhaps—and it was such a sarcophagus as few men have ever possessed.

"Don't move," a low voice commanded. "Not an inch! *Careful!*"

But Tony's reaction was involuntary as he whirled. Almost beside him, but out of easy reach, was Commander Desquer. In his hand was a carbon-gun, and another was in his holster. The man's glittering eyes watched Tony icily from under the shaggy penthouse brows.

"Careful!" Desquer repeated. "Your brother wasn't."

"Where is he?"

"There. . . . He isn't hurt. He'll wake up in a few minutes. Just stunned. My gun wasn't loaded, but his was. So—"

Desquer grinned and passed his palm over his shaved scalp. "Revive him. Quick!" he barked as Tony hesitated.

THE latter silently went to where Jimmy lay huddled against the wall of the temple. He knelt beside the boy and began to slap his cheeks. He glanced up once to see the Commander watching him narrowly.

Desquer said, "Where's the Earth-Star? You got it?"

"I don't know what you're talking about," Tony grunted.

"No? Then let me explain. That televisor call that took me to the surface—it was from a man named Zadah, the secretary of a certain Rajah. He told me all about you. Offered me a fortune if I got the jewel back for him.

Well—I intend to. I'm sick of the Legion, and this is my chance to buy my way out and live like a prince. So—where's the stone?"

Tony told him, but his remark was unprintable. Desquer's thick lips twisted in a sneer.

"Very well. But I'll get it, remember that."

"A lot of good it'll do you now."

"I'll get out of here. But first we're going to destroy that machine of Thotmes. Your brother's waking up. Bring him along. We're heading for the pyramid."

Grimly Tony hoisted the half-unconscious Jimmy to his feet and supported him. "We're unarmed. There are scores of priests—"

"You're g o i n g to stay unarmed," Desquer snapped. "I can handle a gun better than any three men. *Allons!*"

Tony grunted and started out, carrying most of Jimmy's weight on his shoulders as the boy slowly recovered from the blow that had stunned him. His lips were a tight, pale line. Both he and Jimmy were completely in Desquer's power, and the man was so completely an egotist that he had not hesitated to carry out his own plans even in the face of a doom that threatened the entire Earth. Ruthless Desquer was—but of his icy courage there could be no doubt. Nor of his greed! Tony sensed something of the driving power within the man, the desolate years of loneliness in Sub-Sahara, a prison worse for Desquer, perhaps, than for any other man there.

They moved toward the pyramid, keeping to the shadows. Tony and Jimmy preceded their captor, conscious always of the gun leveled unerringly at their backs. There was neither sign nor movement to indicate the presence of the Atlanteans.

"How do you expect to get to the machine?" Tony asked finally. "It's guarded."

"I can outshoot a dozen Copts," Desquer said confidently. "We're going straight in. We'll find a guide—make him guide us. If anyone gets in our way, he'll regret it. We're going in, smash the machine, and come out again. And then—I'll find out which of you has the Earth Star."

Tony didn't reply. He went on, his mind desperately searching for a plan. But it seemed hopeless. There was no way out.

Finally only a broad plaza separated them from the pyramid. At its edge the trio paused. Desquer said, "We'll skirt around to that building—see it? It juts into the open space . . . I don't see any guards, but there may be some."

The three were standing in the shadow at the corner of a tall stone obelisk. And without warning a score of figures dropped down upon them, in utter silence—and with murderous fury.

Desquer's guns were in his hands. The snarling crackle of the carbon-pistols rapped out, awakening echoes in the dead city. Tony could not see the commander; he was borne down under a press of bodies, struggling furiously. Beside him he heard Jimmy cursing and striking out weakly. The Atlantean priests were not using their ray-projectors, perhaps because they depended on weight of numbers. That was their mistake!

IT WAS Desquer's fearless savagery turned the tide of battle. His guns bellowed without ceasing. Thrice he went down, rising at last a gargoylish, hideous figure, dripping with blood from a dozen sounds, his bare scalp shining blackly in the red light. One by one and two by two he killed, mercilessly, viciously, finally clubbing his pistol to-

dispose of the last of the priests, who was atop Tony.

"Can't waste ammunition," he growled. "Get up! Both of you! Hurry!"

Tony stood up, Jimmy beside him. A few of the priests *had* escaped, he saw, and were even now fleeing toward the temple. Desquer raised his gun, hesitated, and lowered it.

"Come on!"

Tony stared. Scores—no, more than a hundred priests were pouring from the pyramid, forming a phalanx massing itself to guard the threshold. In the lead stood Thotmes, his spade beard making him easily recognizable. The fleeing priests joined their companions, and the little army stood in silence.

"Not using their ray-projectors," Tony said. "Guess they're good only at short range."

Desquer snarled, "Come on!" His guns snouted forward, urging his captives on. Slowly they moved across the plaza.

The commander fired. A priest fell, screaming. The ranks closed in, hiding him from view.

Again and again Desquer fired. His gun clicked on an empty chamber; he emptied the other one. Then he reached for his belt—and Tony heard him curse.

"*Dieu!* Those damned Copts! The priests—they got my ammunition belt in the fight!"

Tony stopped, turned. Desquer was standing straddle-legged, the carbon-pistols, futile without coal, pointing at the priests. His face was set into rock-hard lines.

Thotmes shouted something and lifted the missing ammunition belt in one hand. He raised it tauntingly.

"Got any coal?" Desquer rasped. The other two men shook their heads.

The priests began to move forward. Tony said, "You can't destroy the machine now, Desquer. You've doomed the world—and yourself."

Desquer's knuckles were white; he stood as though carven from granite. His jet eyes squinted at the oncoming mob.

Jimmy started to laugh. "How do you like it, Desquer?" he mocked. "You're not the commander now. You're just a guy with an empty gun. And—you're going to die, Desquer. *You're going to die!*"

CHAPTER VIII

The New Atlantis

THE tension grew unendurable. The priests were advancing slowly, as though assured that their quarry could not escape. In the lead Thotmes was smiling and stroking his beard with one hand.

"Surrender," he called out. "No harm will come to you—for a while. Not till we need new beast-gods!"

Desquer's face went a mottled red. But still there was no fear in the man. He faced the throng, still holding his guns—and suddenly sheathed one and began to search his pockets. His low voice rapped out.

"Quick, you fools! See if there's anything on you we can use for ammunition. It doesn't have to be coal—carbon will do."

Tony shot one hurried glance at the mob of priests. Desquer gave a little cry of triumph and brought out a single coal-cartridge from his tunic pocket. "Good! Only one, but—" He slipped it into the gun's firing cup.

There was a queer look, almost of amusement, on Tony's dark face. He gripped Jimmy's arm and whispered, "Wait!"

Desquer stepped forward. He raised his gun and called, "Halt!"

A flashing smile came from Thotmes. The high priest did not reply. He kept on. . . .

And Desquer fired.

Thotmes seemed surprised. He paused, lifting his hands to a chest that was a gory mass of red ruin. He stared at his bloodstained fingers.

From the priests went up a whisper of terror—as Thotmes fell! The high priest of Alu was dead!

Desquer did not pause. He took one step forward, and another, as though expecting his enemies to give back. But they did not.

They massed together grimly—and advanced.

This time the commander paused, his thick lips twisting. His hand dived into his tunic pocket in a futile gesture. But there was no more ammunition.

Tony was smiling. He touched Desquer's arm.

"I've a bullet for you, commander."

"Eh?" The glittering eyes widened. "Where—"

Desquer's gaze focused on what Tony held in his palm. Lens-shaped and lovely the great gem lay there, flashing in the red light of Alu. Like a diamond it was—but it was not a diamond.

Jimmy said breathlessly, "Tony! You—"

"The Earth Star!" There was sweat on Desquer's face.

"Go on," Tony whispered. "Take it, commander! It's carbon. You can use it as a bullet. A coal-cartridge will kill a man. This jewel's much harder than stone. There's no limit to the power of a carbon gun. You can bring down the pyramid with this—commander!"

Desquer still did not move, and Tony deftly slipped the jewel into the gun's cup. It rested there in its strange setting, beautiful beyond imagination, holding within its fiery heart fortunes and grandeur and death. A jewel—but it was carbon, too. And Desquer's eyes did not move from the great gem.

"Shoot," Tony said. "If you do, you lose the Earth Star. If you don't—it means death."

The commander's face was shining with sweat. He glanced up once to the mob of priests, very close now. His gross frame shook with the agony of indecision. To possess the Earth Star—and to know that its possession meant certain doom! He had only to squeeze the trigger, and his enemies would be blasted out of existence. But if he did that—

He would lose the Earth Star!

He snarled at Tony, "So you were the one! The Merlin—"

"Fire!"

Almost involuntarily Desquer brought up the gun and aimed it. He was whispering curses under his breath, putting off until the last moment the decision that must be made sooner or later. And he dared not wait too long. The priests came closer.

The flickering red glow made Desquer's features scarlet and black; his eyes burned balefully, tortured and terrible. He said, "Damn you! I—I'll—"

His finger tightened on the trigger. And—stopped.

For the priests had paused. They were staring at the Earth Star. They, too, were frozen motionless.

One cried, "The jewel! The jewel!"

The tableau held. Abruptly the priests gave back, hesitating. Tony heard Jimmy's gasp. He, too, was wondering what this meant.

HE WAS never to know. Perhaps, in long-forgotten ages, another Earth Star had been dug out from beneath the Atlantic, to form part of the religion of Atlantis. Tony could not know. But he realized that the priests

recognized the jewel, or thought they did. They bowed before it!

Instantly Desquer realized his opportunity. He said quietly, "Come on. We're going into the pyramid—and smash the machine."

Tony said, "You're crazy. The priests won't stand for *that!*"

Desquer grinned unpleasantly. Without warning the other gun was in his hand; he clubbed it and swung. Tony felt a crashing blow on his head as he ducked. Gasping with pain, he reeled in and closed with the giant commander.

Jimmy had hold of Desquer's arm but with one sweeping motion the officer sent the boy sprawling. Desquer and Tony went down with a crash on the stones. Soft cries came from the priests. They began to move forward again, their superstitious terror gone.

Desquer's stubby fingers were sunk into Tony's throat; he squeezed viciously, his tiny eyes glinting. Though he lay undermost, he was getting the better of the battle. Tony pumped blow after blow at the commander's face, but apparently without effect. He felt Jimmy at his side, saw the boy try to tear the iron fingers from his brother's neck.

And, too, Tony saw the carbon-pistol lying on the stones near by.

"Jimmy!" His voice was a cracked wheeze. "Gun—pyramid—"

Into Desquer's eyes sprang murder-light. The fingers contracted, sending agony down Tony's spine. Jimmy understood, though, and dived for the pistol. He snatched it up, leveled it at the pyramid and the oncoming priests.

Desquer yelled like a beast. His fingers relaxed. Somehow he writhed free, sprang up, plunged toward Jimmy.

"Don't!" he bellowed. "Don't—"

From the gun's muzzle burst a raving blast of searing flame. The incredible pressure that had made the Earth Star was released. Straight through the ranks of the priests it bored an aisle, into the heart of the pyramid, melting and wrecking solid stone with the terrific power of its thrust. The volcanic fires of Earth itself seemed to be latent in that—bullet!

Over the cries of the priests came a rumbling, crashing thunder. A block fell, clattering down the pyramid's side. The structure buckled. Its whole side was torn out. The summit toppled and came thundering down, amid clouds of smoking dust and ruin.

Tony staggered erect, staring up. Something was happening to the cavern roof. The pyramid *had* been a pillar, supporting it. And now the support was gone—

Rocks fell from above. Cracks ran out like a great spider web. Something silvery flashed down from above, glinting red in the crimson glow. Tony remembered that above Alu was the Midnight Sea!

And that sunless, tideless ocean was pouring into the cavern world through the crevasse that had been torn in its floor!

The falling water became a column, a torrent, a bellowing Niagara. It drowned the wreckage of the pyramid. Down the flood came thundering, and icy tides lapped at Tony's feet. He seized Jimmy's arm, pushed him along.

"We've got to get out of here!"

"How—how can we?"

"We can try—"

THEIR voices, raised to shouts, sounded like thin whispers above the mighty rush of the ocean that was pouring into Alu. The priests ran about aimlessly, and among them, Tony saw, was Commander Desquer. A knot of the Atlanteans surrounded the officer. They were trying to pull him down, like

wolves surrounding a bison. Unarmed, Desquer yet was stronger than his opponents.

Silently Jimmy pointed. Tony's teeth showed in a mirthless grin.

"So what?" his lips formed. He was remembering Phil . . .

The brothers p l u n g e d along the street, already knee deep in surging black water. A louder thunder came from behind them. A new sound filled the cavern—a deep hissing, like steam. Beyond the wreck of the pyramid, Tony saw with a quick glance, crimson clouds were lifting. So the red light of Alu was actually due to volcanic activity. And now the icy waters of the Midnight Sea were finding the molten fires of lava—

More rocks fell thunderously. Looking back, Tony saw a single figure charging after them—Desquer, a battered, bleeding giant who splashed on through the water amid a hail of stone that dropped from the vaulted heaven of Alu. All about him that deadly hail dropped. One glance Tony had of Desquer rushing on, h e a v y shoulders hunched, teeth bared in a mirthless grin—

Then he was gone! The avalanche from the cracking skies buried him. A pile of rocks showed for an instant where he had been, and that, too, vanished as the rising waters seethed past.

Tony said nothing, but as he fought past the temple of Osiris where Phil's body lay, he lifted his hand in a queer, quick salute. Perhaps Phil would know, now, that his death had been avenged . . .

Already the dark tides were seething at the tunnel-mouth that led to the upper world. On the threshold Tony paused, to take one last look at ruined Alu. The red light was darker now, and somber. The flaming clouds boiled up endlessly; the rock shook and quaked underfoot. The Niagara that poured from the roof of the cave looked like a solid obelisk, and an odd thought came into Tony's mind.

"A pillar of cloud by day . . . and a pillar of smoke by night . . ."

Alu, daughter of Atlantis, was dying as the mother continent had died. Earth-fires and deluge were slaying her, wiping out all life, wrecking the culture that had survived from the misty, unknown eons before Egypt was. The huge temples, half submerged in seething tides, were falling in ruin. All over the vast cavern darkness was falling.

The arched ramp they had seen on entering Alu was still visible, far away. And now Tony saw that there were figures upon it, as there had been at first. Figures with strange, misshapen heads—

The pitiable, terrible beast-gods of Alu, created by dead Thotmes' science!

One glimpse Tony had of those far figures, outlined blackly against red smoke. Then—the ramp fell.

Over Alu the roaring desolation of death and ruin held sway!

Tony turned to the white-faced Jimmy. Already the water was tearing at their thighs.

"Come on," he shouted. "We're getting out of here. Fast!"

They fled up the tunnel . . .

The rest was sheer nightmare. Somehow they found their way, following always the passages that led up, hiding from terrified, frantic Copts, fleeing through corridors whose walls shook with the grip of earthquake. Up and up they went, finding at last a frightened Copt who agreed to guide them to the surface. His own world was falling in pieces about him, and he wished only to escape. A cave-in crushed him not long after, but the passage stretched unbroken before the

brothers. They toiled on . . .

Daylight filtered in yellow brilliance through a crack in the rock. Exhausted, haggard, filthy scarecrows, the two squeezed through into blazing sunlight. About them lay rolling dunes. They were in a rocky little valley.

They dropped to the sand and lay there motionless for hours, scarcely conscious of the burning sun.

The soft mutter of a gyro motor woke them. Tony sat up, blinking. He was in time to see a plane land softly not far away, and a figure in flying uniform step out.

JIMMY was still sleeping. Tony lurched forward to greet the new arrival. His eyes were misty with sleep, and he did not at first recognize the pilot—not till the latter took out an automatic and held it ready.

Then he saw it was Zadah, the Rajah's secretary.

Tony stopped, swaying a little, his arms hanging limp at his sides. Zadah's round face was triumphant. The beady eyes shone with triumph.

"Luck," he said. "I've been cruising about for hours just on an off chance. I just happened to sight you—"

"The Copts," Tony said thickly. "They—"

Zadah nodded. "I know. Your legionnaire got through—Jacklyn. There's an army of troopers at the mouth of Sub-Sahara. But—where's the Earth Star? If you escaped, that means Desquer didn't get it."

"It's gone. Desquer got it—and used it. The Earth Star's destroyed, Zadah."

The other hesitated. Something he saw in Tony's eyes made him realize that the latter spoke truth. Abruptly baffled rage sprang into Zadah's round face.

"Gone! Then—"

He lifted the gun, his lips white with fury at the wreckage of his plans. "Maybe! If you're lying, I'll find the jewel on your bodies."

Tony tensed himself for a spring that he knew in advance would be futile. But, before he could move, another figure hurled itself forward. Jimmy's slight frame dived at the killer.

Zadah's gun barked. Jimmy cried out; the Oriental swung his weapon back to Tony. But he was too late. His wrist was held in a grip of iron. Tony's dark face was close to his own, and there was death in the somber eyes.

Zadah screamed.

Tony said not a word. Very slowly, very carefully, he bent Zadah's hand back. The latter's finger was still on the trigger. The gun pointed at last at the killer's heart.

Then Tony smiled—and the muscles of his hand contracted.

The report was shatteringly loud in the desert stillness.

Tony let the limp body slide down, and turned back to Jimmy. The boy was dead. Zadah's bullet had made a neat little hole in the brown shirt.

After a moment Tony carried the body of his brother to the plane and put it aboard. He followed. He sent the gyro winging up over the desert.

Beneath him the Sahara stretched, a white wilderness under the flaming heat of the Sun. To the north could be seen an encampment, the troopers that had arrived, too late, at the mouth of Sub-Sahara. Tony set the controls and fled beyond them.

The desert gave place to the Mediterranean, and that, in turn, to the Pacific Ocean. The cool blueness of night folded down. Moonlight silvered the waves.

Tony opened a trap-door in the floor

and let the body of his brother slide through. Phil rested in the temple of Osiris—and Jimmy would lie beneath the waves that hid Atlantis.

He went back to the controls, staring ahead at an empty horizon. Westward lay New York. He could go back there now; the motive for keeping hidden had vanished. No one would know who the Merlin was. Some men might guess, might be convinced that either Phil or Jimmy had stolen the Earth-Star—but they would never dare make an accusation, and Seth Martell would need make no compromises with his honor and his ideals.

Only Tony would know that the Merlin had been his brother Phil.

For ten minutes he had been alone with Phil in the Temple of Osiris. And, before the youth died, he had told Tony the truth—that he was the Merlin. He had given his brother the Earth-Star to keep. But no one would ever know that now.

Tony's throat was tight. He stared at the dim horizon of sky and sea, knowing that beyond it lay New York, and a life he could take up again where he had left it. A life he must live—alone.

A faint glow brightened to the west. The tallest towers of Manhattan were pillars of light against the sky.

REGAL FUR

By ROLAND MAYS

MINK coats are expensive you say! Nonsense! A full length chinchilla coat costs approximately $50,000. How then can a mere mink coat be called expensive?

The pelts of the chinchilla are strictly limited in numbers. So scarce are the coats in existence that leading fur dealers know pretty accurately who their owners are.

This valued rodent—the chinchilla—no larger than a man's hand, weighs about twenty ounces when fully grown. This treasured of all animals, resembling a squirrel, possesses dense, soft, pearly-gray fur; and in its native habitat, protective coloring aids it to hide itself among the rocks.

Chinchillas live at altitudes between 8,000 and 12,000 feet in burrows on the slopes of the Andes in Chile, Peru, and Bolivia. They are found nowhere else in a wild state. Being inquisitive little fellows they are ready to investigate anything that sounds interesting in broad daylight, although they prefer night life. At dusk and dawn they emerge to feed on roots and grasses much in the same fashion as a squirrel.

MORE than a century before Columbus discovered America, the Incas wove warm cloth from the fur of the chinchilla. They sometimes tamed the animals and often ate their flesh after shearing their fleece.

Half a century ago, chinchilla fur was an important industry in Chile. Today these fur farms are spreading over the United States. The first chinchilla farm in the U. S. was established because of an American mining engineer's sojourn in Chile. Interested in the possibilities of the little animals, the American sent 23 Indians to bring back alive all the chinchillas they could find. After a minute search for three years, the Indians returned with only eleven animals. It took another three years to transport the animals to sea level slowly enough to let them become acclimatized safely.

THE chinchilla bears from one to three litters a year with an average of two young in each. After less than twenty years, the original twelve chinchillas (one had been born on the ship voyage from South America) have multiplied to more than one-thousand on a farm in California. Farms in Wyoming, Utah, Idaho, Wisconsin, New York and Pennsylvania began with breeding stock from the California farm. Idaho's colony enlarged in a short number of years from one pair to sixty chinchillas valued at one-hundred thousand dollars.

As much as $5,000 has been charged for a single pair of chinchillas for breeding purposes. Single pelts, however, usually cost between $85.00 and $250.00, depending on their quality. It takes about 140 skins to make a coat. Figure it out for yourself. Yet, despite the tremendous cost of a coat, the chinchilla fur is less durable than the majority of furs used for coats.

Scientific

SCIENTISTS HUNTINGTON and DIXON CONTEND THAT THE NEGRO IS NOT A PRIMITIVE BUT A RECENTLY-EVOLVED TROPICAL TYPE.

DR. CLARK WISSLER, CURATOR of ANTHROPOLOGY, STATES THAT THE WHITE AND POLYNESIAN RACES ARE MANKIND'S ORIGINAL STEM . .

LONG, SLOPING FOREHEADS WERE GREATLY ADMIRED BY THE CULTURED MAYAN INDIANS SO THEY SHAPED THE HEADS OF THEIR CHILDREN IN INFANCY. STRANGELY, THIS ELONGATED BROW DID NOT AFFECT THEIR INTELLIGENCE.

Mysteries

THE MYSTERY OF MAN'S COLOR

By L. TAYLOR HANSEN

ILLUSTRATED BY JOE SEWELL

What is the secret behind the color of man's skin? What is his true color?

THERE is no subject upon which more scientific nonsense, or rather let us say nonsense purporting to be science, has been written than upon the subject of race. The reason is not hard to find. Each man prefers his own type and considers his to be the highest. It is a subject which is more bound up with emotion than with reason, and the average man is still essentially an emotional animal.

Since the start of history, the question of a desirable racial type has run through as many fashions as women's clothes. The Germans, in preferring blonds, are not the first peoples to set a racial style. The Mayans admired slanting foreheads (and strangely enough, their ironed-out foreheads, done in infancy, did not affect their intelligence), the Incas admired large ears, certain African tribes large lips, the Turks once admired excess fat and the Medieval artists thought excessively long necks were desirable.

The ideas of race, which were popular during the days of our fathers, are at present giving place to other standards of differentiation. If the tendency continues to its inevitable conclusion, we are going to discover that there is no such thing as a white race. For the standards of color by which our parents learned to classify mankind are far too superficial for the most advanced anthropologists. Today the scientists are busy pointing out that skeletal differences are far more important than the shade of the subject's skin.

Modern science regards the white, yellow, black, red and brown, even when the latter is eliminated or classified with the red as a subgroup under the yellow, with profound distrust. Thus the deeper structural differences are leading the foremost thinkers to suspect the old classifications so strongly that they are going out of fashion in any scientific discussions worthy of the name.

For example, Huntington contends that skin-color is now distributed over the earth's surface according to the strength of the sun's rays, and is only man's reaction to his environment. Dixon, of Harvard University, argues that all men are to be divided by skeletal differences into round-heads with narrow noses, round-heads with broad noses, long-heads with narrow noses, etc., completely ignoring hair-texture and the color of the skin. Both of these eminent scientists have agreed that the negro is not a primitive, but a recently-evolved tropical type. In other words, a group of the long heads, finding themselves in a tropical environment, evolved the spreading nostrils, thicker skull and blacker skin of the negro. Thus the negro is a late adaptation of Modern Man to a tropical environment.

NOW it is interesting to note that mankind may be divided into two rather distinct types which are called "harmonics." One is a long-headed, long-faced, individual with long eye-sockets. The hair in cross-section is inclined to be very oval, thus giving it a tendency to curl. The type is the Ancient Egyptian. Let us call him the "proto-negroid" because in its extremity, the type becomes more negroid, the hair becoming exaggeratedly curly, etc. The negro is a late branch from the type. In its earlier form, the skin is a tan shade and the eyes are long and deep-sunken, the nose delicate, the lips not too full. The stature is slight and slender. The hands and feet slender and delicate.

The "proto-negroid" is sometimes called the "ancient longhead" and sometimes called the Mediterranean Race. This latter name is somewhat incorrect, for though the people are to be found in the Mediterranean, they are centered in the area of the Indian Ocean. A better name for them would be the "Peoples of the Sea," for they are found upon every ancient shore-line.

In London, for example, when dredging for a new building, in the lowest basement, while digging in the gravels in which are to be found the remains of the Great English Channel forest which once covered that submerged valley, the human skulls which are brought up are the true type of the ancient long headed "People of the Sea."

Again in the channel islands of California, when the earliest skulls are unearthed, they are once more the harmonic long-head. A map of the cephalic-index of living populations today would reveal that the long-heads would live along the sea-coasts, with the exception of the western coast of the Americas where round-heads have displaced the ancient long-headed population.

The other "harmonic" type is the round-headed, round-faced Asian with round eye-sockets and straight hair which is in the cross-section completely round. In the extremity this type develops the mongoloid eye-fold and becomes the typical Chinese.

These round-heads are concentrated most thickly in the region just north of the Himalayas. From here they pour in a thick stream from the Caspian into the Mediterranean and through Greece and Albania into Europe. Another arm runs northward through Russia into the Baltic while a third stream sweeps northeast across the Aleutian Islands and down the western coast of the Americas. Thus from the map of present distribution, it is easy to see that the round-head is an Asian and a landsman

NOW where does white man enter this picture? Is he a cross? We learn with surprise that his is not a true or a harmonic type. Between the poles of the long-headed proto-negroid, and the round-headed Asian, in headform, shape of the face, eye-sockets and cross-section of the hair, varies that section of Modern Man which we designate as the "White Race." The variation is so profound that not only do we see all combinations within the same nationality, but often within the same family group.

These facts force us to one of two conclusions. Either the white race is a very profound cross which has never remained in isolation long enough or inbred deeply enough to set its type, or it is the original stem from which the other two harmonics branched.

To meet these facts, some ingenious classifications have been offered. For example, there is Duckworth, who would make the round-heads the general type from which the long-heads, making their way into the Indian ocean and spreading from this point, were an early branch. However, that of Wissler * seems to be the most logical. He would make White Man and perhaps also the Polynesian Race the original stem. As he points out, the White Man is the most hairy of all the races and this is certainly a primitive characteristic.

When studying the very ancient nations it is important for us to keep in mind the characteristic of facial hair. It is anthropological nonsense for us to classify the beardless Egyptians and Cretans as "White Men." It would be more honest for us of the white race to admit that the first civilizations were not founded by men of our race, but by the tan-skinned "Peoples of the Sea," some of whom, nevertheless, have contributed to the blood of the modern European.

As for this matter of superiority, the honors for geniuses are so evenly divided between the two harmonics that one could not truthfully give the palm to either the one type or the other. It would be a controversial question, for example, whether the round-headed Beethoven and Socrates were any greater than the long-headed Wagner and Shakespeare. And I would venture to wager that the honors in the prisons are just as evenly divided! Apparently the only fair judge of potential intelligence is brain-capacity in proportion to the frame, for much brain-space is taken up in mere muscle control.

AS FOR blondness, it is a stumbling block, for it is to be found in Northern Europe among both round- and long heads. Dixon suggests that there may be something about the food grown in this soil, or some other physical reason which might contribute to fair hair and pale skin However, the blonds to be found among the San Blas Indians of Colombia are a denial to this theory of Dixon. The Indians have their own names for their whites. Significantly they are called "yapisas" or "hairy ones." Sometimes they are nicknamed "moon-children" in reference to the fact that white is the color sacred to the moon.

It is interesting to know that these blond Indians exist by the thousands. Some were taken to the Smithsonian Institute to be studied by the scientists. One of the most interesting facts to be discovered was that about one third of their words come from the ancient Norse. After realizing that these Indians did not have the white hair and pink eyes of the true albinos, but blue eyes and various shades of golden hair, the scientists decided that they were partial-albinos. One sage expressed the opinion that the San Blas tribe was in the process of changing its racial type and that the proceeding would have gone much further if an abnormal hatred for the conquering Spaniard had not caused the blonds to be placed under a marriage taboo. (This fact was attested to by the Indians themselves.)

The designation that the blonds were partial-albinos is an interesting one The question which naturally arises is, if these people with their various shades of light hair and fair skin, are to be scientifically classified as partial-albinos, what are white Europeans? What is white man in

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* *Wissler, Clark — Curator of Anthropology, Amer. Museum of Nat. Hist., New York City —Ed.*

general? Is he a partial-albino? Is white skin to be considered as various degrees of partial-albinism? And if so, was this a general condition of the original stem along with a tendency to body-hair, from which diverging types acquired a more hairless skin and a deeper color?

What do you think?

THE END

AMAZING FACTS

By A. MORRIS

FOUND: ONE ANCIENT BLUE-PRINT

AN architect's drawing, found in Mesopotamia, is believed to be the oldest in the world. This 4,000-year-old drawing was in a fragmentary condition, but three of the pieces fit accurately together, showing part of the ground plan of what must have been a very large house.

The walls and doorways for 17 rooms are indicated by accurately and cleanly drawn lines, and cuneiform notes give the dimensions. The largest room was 40x46 feet, and the scale of the drawing is 1 to 360.

* * *

INGENIOUS HELPER

SOUTH AMERICAN Indians made surgical use of the powerful jaws of leaf-cutter ants by making an ant take hold of the two sides of wound and drawing it together. The ant's body was then cut off, leaving an automatic clip.

* * *

DISH WASHING DANGER

HOUSEWIVES are warned not to let the dishes in which gelatin desserts have been served stand overnight in the kitchen sink. For gelatin is a colloid, one of those hybrid substances that, from the point of view of a physicist, are neither a solid nor a liquid.

Gelatin, when dry, exerts a force strong enough to pull chips of glass out of the sherbet glasses in which the dessert had been encased.

* * *

MOSQUITO BITE RELIEF

W. A. HOFFMAN, professor of parasitology at the School of Tropical Medicine in San Juan, Puerto Rico, recommends the use of chloroform to stop the itching of mosquito bites. Cotton soaked in the chloroform should be rubbed briskly over the bite, being careful to keep it away from the eyes, nose and mouth. This method is best used immediately after the bite. Itching is stopped quickly. Relief in the case of annoying swimmer's itch and flea bite is also obtained by this treatment.

* * *

THE OYSTER—POTENTIAL BREEDER OF TYPHOID

IT is reported that there is danger of typhoid infection from oysters. The liquid in which shuckled oysters are carried provides an excellent breeding ground for the typhoid bacillus. Bacilli from an infected oyster not only may be carried by the liquid to other oysters but may increase during their stay in the liquid.

Typhoid bacilli have been shown to increase in the liquid of shuckled oysters. With a sufficient rise in temperature the multiplication of typhoid bacilli that may be present will occur in oyster liquid in which oysters are often transported. Thus the danger from a single infected bivalve is capable of being magnified many times by the time a shipment reaches its destination.

* * *

EXPENSIVE PESTS

DID you ever stop to think of how many different kinds of insects there are in our United States and how much damage they do in dollars and cents?

There are about 80,000 different kinds of insects, 10,000 of which can be classified as nuisances. Damage of more than one and one-half billion dollars is accomplished by these 10,000 insects. These are in addition to the prolific rodent families. For instance, the rat population of the country is double the human inhabitants, with each doing at least $2.00 worth of damage annually. To fight this two billion dollar menace the government spends two million dollars yearly while the expenditure of growers for insecticides and fumigants is two hundred million dollars.

* * *

CHICLE FEVER

ASTHMATIC symptoms such as sneezing and coughing, have been traced to chewing gum. Chicle, the substance which constitutes the base of all chewing gums, has been blamed for this allergic tendency.

Chicle is the sap from a tree which grows in Mexico, Central and South America.

* * *

PEROXIDE FOR SEEDS

HYDROGEN PEROXIDE has a better use than that of bleaching hair. It is extremely beneficial in the fields and gardens.

Science has found that a strong solution of peroxide of hydrogen will free seeds of the disease-bearing fungus spores that cling to them and ruin them when they are planted. Seeds such as tomatoes, corn, beans and peas flourished under this treatment.

Clutching his short-sword, Hargreaves faced the rush of the Martian rodent

Don Hargreaves didn't anticipate what was in store for him deep inside Mars when he ran away from boredom—and blundered into the stronghold of the Pirates of Venus!

INTO THE CAVES OF MARS

By FESTUS PRAGNELL

I THINK I'm lucky, do you Festus? Being married to Princess Wimpolo, daughter of King Usulor, Emperor and Overlord of the underground world of Mars. Yes, I know it sounds good to you. You ought to try it, Festus, and see how you like having a wife who is ten feet tall and weighs half a ton. She can pick me up in one hand.

If I didn't assert myself sometimes I'd have no more say in matters than a little pet dog. Sometimes I have to put my foot down. I did over the question of the onions for instance.

It was her habit, when she was dressing, to have beside her an enormous jar of pickled onions, and from time to time she would take one out and pop it in her mouth. It made her breath like a gale in an onion farm.

"Look here, Wimp," I said, "you've got to stop it."

"What's biting you now?" she asked.

"Eating so many onions," I told her. "That's no trick for a fine lady."

"And who told you I wanted to be a fine lady?"

"I know you don't," I said. "But your father wants you to uphold the dignity of your position. The people expect it, too. And I think you might

at least try to meet them half way."

She took no notice, just went on dressing. When she had finished and got her hair right, she took the last of the onions out of the huge jar and poured away the remaining vinegar. She threw onions and vinegar away.

"Good," I said.

"What's good?"

"I'm glad to see you are giving up this nasty onion-eating habit. I knew your love of me would be enough to persuade you to make this small sacrifice."

She picked me up, put me in the empty jar, put the lid on, called to her zekolo and went out.

That's the sort of thing you get because of being married to the first lady in Mars, Festus. Corked up in a pickle jar like an onion! She had never even thought of the possibility I might suffocate!

I drew my sword and tried to get the stopper off the jar, but it was a screw-on stopper and very tough. I could not shift it. So I shouted for help and banged on the glass.

It was a long time before anybody took any notice. Then somebody stopped outside the door.

"Is anything wrong in there?"

IT was Vans Holors, wrestling champion of Mars and one of the best of Martians.

"Vans, Vans!" I called. "Get me out of here!"

"That you, Don? I can't hear what you are saying."

Being shut up in the jar, my voice didn't carry so well, and Vans was naturally shy of barging into the Princess's dressing-room. Still, in the end he made up his mind that something was wrong and came in.

"Why, where are you?" he asked, looking round.

I banged some more, and he saw me.

"How did you get in there, little Earthling?" he asked, picking me out between his finger and thumb.

"The Princess's idea of a joke," I growled, wiping my streaming eyes on his handkerchief, which was like a blanket to me. My own handkerchief was so impregnated with onion smell that it only made matters worse.

"Eh," he said, "don't stand so close to me. You smell so strong of onions you make my eyes water too. Ah, these women, Don! Even my own wife, Olla. See!" He pointed to long scratches on his cheek. "I told her she was going to too many balls with that man Bommelsmeth, and this is what she did to me."

Poor Vans, most powerful man of Mars though he is, is absolutely ruled by his tartar of a wife.

"Women!" I said, bitterly.

"Ah!"

"Women are a plague."

"Too true!"

"How happy the planets might be without women!"

"You said it."

"Vans, let us run away!"

"What?"

"Let's both get divorced!"

"Ugh?"

It takes a long time for an idea to sink into Van's brain, unless it is anything to do with fighting. But in the end he got it. We would both get divorces on grounds of persistent cruelty and go to live in some distant Martian cavern, far away from the Imperial Palace, its glitter, its pomp and its domineering women.

"We will be downtrodden no longer," I said. "Come Vans, let us be free."

"Think it's wise, Don?" he rumbled, doubtfully.

"Of course it's wise. We Earth men never allow our wives to walk on us

like this. It is time to assert ourselves."

"I know a good attorney."

"Then what are you hesitating for?"

"I'll go to him with you. But I'm a bit doubtful . . ."

"Pshaw!"

So we went, right away.

THE Martian attorney rubbed his hands together.

"You want two especially rapid divorces. Of course, it will be rather expensive."

"How long will it take?"

"Seven days. Your name please. Don Hargreaves, Earthling— What?" he screamed, suddenly. "You are Prince Don and you want a divorce from Princess Wimpolo? Why, the Princess would have my head chopped off if I dared! And *you,* Vans Holors, live in the palace too? You must both bring me applications signed by King Usulor himself before I can consider it for a moment. Till then, get out of my office. *Get out!"*

So that was that.

"We've been in many jams together, Vans old chap," I said.

"We have."

"But this looks like being the worst of all."

"Too true."

"But we are not beaten yet."

"How come?"

"We can run away."

He hemmed and hawed, he rumbled, he scratched his head, but in the end he agreed.

"Right you are, little sparring partner. I'm with you. We'll run away together."

And I was glad, because of all men on Earth or in the underground world of Mars, Vans is the best to have with you if you are going into strange and dangerous places.

SO, we traveled. We traveled in those transparent rolling traffic spheres of Mars. We traveled in vast air lines through gigantic caverns. We traveled on the shelly backs of spidery zekolos.

I had no idea at all where we were going. I was never much good at geography. And the geography of Mars is a matter of three dimensions with its upper caverns, middle caverns and inner caverns. I have not been able to get the beginnings of an understanding of it yet, and I do not think I ever shall.

Vans said he knew where he was going. I trusted him. Who wouldn't? You would think a Martian would know his way about his native planet. I might have known, though, that the only thing Vans really understands is fighting.

I began to get uneasy as we pushed on into wilder and wilder caverns.

"Are you *sure* this is the way to your home cave?" I asked him.

"Of course it is. All this country looks different because it was over-run by Bommelsmeth and his ape-men armies in the war. That's why it's got so neglected."

Which argument might satisfy him, but I was getting gradually more and more certain that no human being had ever been this way before. There was never a sign of a road, again and again we had to cross nasty swamps. If I had been able to see even a tree cut down, or a footprint, I would have been a little happier. Because then I would have known that somehow, at some time, some human being had been here before. But I did not find either, nor any trace of humanity at all.

"Vans," I said at last, "this *can't* be the way."

"I hope it is," he said, grinning foolishly.

"Why do you?"

"Because I couldn't find my way back now."

I stared at him, and wished for once that that silly vague grin would fade off his face. Because, his wife apart, nothing ever worries Vans, not even the prospect of certain death.

"You mean, we're lost?" I demanded.

"Guess I must have gone into the wrong cave," he mumbled.

Then I knew for certain that we *were* lost. And being lost in the unexplored caverns of Mars is no joke. There are not even stars to guide you. Compasses are useless when they lead you into blind caverns, volcanic areas or underground rivers.

"How are we going to get out?"

"Ask the zekolos," he suggested.

Our zekolos, the crablike creatures the Martians use as horses, have uncanny instincts and, I sometimes think, some sixth sense we Earthlings know nothing about. If we were lost it was much better to trust to the zekolos than try to find our own way.

So we said to the zekolos, using one of the few words that the semi-intelligent creatures understand, "Go home!"

THEY stopped and looked at us, their stalked eyes waving as though wondering whether they had heard us properly. "Go home?" they seemed to be asking. "How in Mars do you expect us to find the way home from here? You take us thousands of miles into unexplored caverns, and then say, 'Go home!' as though we had merely gone on an afternoon visit. Do you mean it?"

We repeated, "Go home!"

They raised their heads, or rather, the front ends of their serrated shells, looking all around with their natural searchlights. Then they put out their lights, but I could still feel their movements, and hear the dry scraping of their shells and pincers. I knew they were peering everywhere with their stalked eyes, peering into the darkness that was lit only by the natural lights of Martian plants and animals.

If even the zekolos did not know which way to go it really would be awkward. Too bad, in fact.

They lit up again. Their stalked eyes waved at each other. They seemed almost to be discussing the problem. Then they lifted us down from their shelly backs and climbed to the tops of two nearby trees. Here they stretched their long, elastic legs till they stood dozens of feet above the ground, smelling the air perhaps, or using that queer sixth sense of theirs.

At last they came down, nodded to each other, lifted us again on their backs and started off in different directions.

My zekolo stopped, looked round, made some queer noise, then turned and followed the one that carried my gigantic companion.

We were going some place, but I wished I knew where.

I THINK you said once that you would like me to tell you more about the scenery of Mars. But I never was much good at that sort of thing. Scenery does not appeal to me somehow. You know what I mean. When the guide-books say, "The beautiful snow-capped mountains rising majestically beside the land-locked bay," it looks to me just like a bigger heap of stone than most, dumped there. And, everything in Mars being underground, there is precious little scenery to be seen, once you get away from habited places, anyway. Just a lot of darkness, like the inside of a soup-can before it's opened; apart from bits of

phosphorescence from plants and natural searchlights carried by animals and birds. Sort of like millions of fireflies of gigantic size. You know what I mean. Many-colored, of course. The distant volcanoes you can usually see spout up red, blue, yellow and purple flames, flickering through their own smoke.

No, it would take a clever writer to work up much interest in the scenery of Mars. Cleverer than I, anyhow.

Anyway, we went barging through the everlasting night of Mars, I and Vans Holors, giant of giants, ten feet tall and over a ton in weight, thick-muscled and thick-headed, but always well-meaning and one of the best of fellows. We were trying to escape from the primordial enemy of men, women. I suppose they mean well, too, in a way, but it's a job to believe it sometimes.

The dim instincts of the spider-crab creatures who served us as steeds were not exactly the best guides it was possible to have, but it was a case of either wandering around ourselves, hopelessly, or leaving it to the beasts.

We saw many dangerous animals, the worst being the man-apes. But they did not attack us. The formidable pincers of the zekolos, which could snap their heads off like scissors cutting off the heads of poppies, warned them to keep their distance. One or two stones were thrown at us, but fortunately the beastmen had not developed enough intelligence to have mastered the use of bows and arrows. Otherwise I might not be writing you now to tell you how Vans and I got into this silly mess.

We killed one or two apes for food. I've tasted tenderer meat, but to watch the zekolos feed, well, I was jolly glad those terrible creatures had never been known to turn on their masters. A grown tiger would be a playful kitten compared to them.

SO, we blundered on. Swimming a stagnant sea, cutting our way through a forest of tangled creepers, climbing through chaotic masses of loose stones and cathedrals of stalagmite pillars climbing fantastic precipices. Nothing but fire or solid rock could stop those zekolos.

A different smell was in the air. A smoky smell, but not the sulphurous smell of the volcanoes. It was a civilized smell, if you know what I mean. Smells of lubricating oil, tobacco smoke, burning rubber and other smells that do not come except where men are. But I could not see where they came from.

Then the zekolos stopped. In front of us was a round hole in the rocky ground, metal-lined. A ventilating shaft of some sort way down there.

This was what the zekolos had carried us to through hundreds of miles of Martian midnight. The Martian equivalent of the top of factory chimney. The faithful creatures had brought us to the only human habitation anywhere near, but not to the main entrance. The front door of this place was probably quite close, actually, but there was no getting to it except by going hundreds of miles through the twisting labyrinth of caverns.

"Good," I said. "All we have to do is to find a way in. Find a door or wall and knock on it till somebody answers. If we get no answer we'll burn a way in with our dissolving rays. We have just about enough power left to burn a hole through a fairly solid wall."

But although we hunted for days we could find no door, and no wall. No sign of human habitation anywhere. Just that one metal-lined hole in the ground, and around it nothing but a

tumbled chaos of rocks.

"Only one way out of this," I said at last. "We must climb down that hole."

"Not my idea of a joke, little man," rumbled Vans, shining a light down into a blackness that seemed to go on forever.

You would not fancy climbing down the chimney of a strange factory, would you, expecting to arrive in the inside of a furnace at the bottom, or between the blades of a giant fan? But there was no help for it. We said, "Down!" to the zekolos, and down we went.

With their pincers on the hand-grips, those zekolos went down that ventilation shaft pretty quick. And we had need to hurry, because the air here wasn't so good.

Some way down we came upon a hole in the chimney wall. It was round and small, far too small for the zekolos, too small for Vans, but just right for me.

"Hold your horses!" I called to Vans. "I'm going to see where this leads to."

And I ran along the tunnel, torch in hand.

It was a winding tunnel. I soon lost sight of Vans. Then, as I was running round a corner, some sort of trapdoor opened under me. I fell downward, into a sort of net.

Above me, the trapdoor clanged shut.

* * *

HOW long Vans waited for me to come back he says he does not know. He shouted, he banged on the metal walls of the shaft, he got the zekolos to make all the noise they could. But I did not come back. Nothing happened.

At last Vans decided that something had gone wrong. And that the only way to help me was to go on down the shaft and find some other way of reaching me. He went on down, with the zekolos.

Presently they came to the floor of the shaft. They stood on a large grating through which air blew.

Vans decided it was time to holler for help. And he hollered. The zekolos helped by making all the noise they could.

It seemed to make no difference to anybody. Nobody answered. Suddenly the grating opened under them and Vans went flying through the air.

"Now it's all up with me," he thought. There seemed to be a vast space under him and tiny lights far below. One light was coming up to him. It was a reflection of his own light, which was still bound to his forehead, and the faraway lights were reflections of the natural searchlights of the zekolos. He seemed to be falling onto a huge mirror. No, it was water. And Vans was as much at home in water as a seal.

He came up, swam a little way and called to the zekolos. They came cautiously, lowering themselves by their long, elastic arms. This water was very stagnant and slimy.

"Okay," said Vans. "Now let's find the quickest way out of here."

They found a rocky shore, where fungi of many kinds, some of it taller than Vans himself, grew abundantly. It was difficult to keep one's feet. Vaguely, Vans felt that it was a queer sort of place that he had gotten into.

Their way was stopped by a wall of frosted glass. Vans banged on the glass and shouted, although by now he had begun to resign himself to the hopelessness of finding anybody alive in this place. Hardly waiting for a response, he grunted a word of com-

mand that set the zekolos trying to break down the wall. Vans was now in a hurry. Some of the odd giant fungi here grew out of human skulls as though they were flower-pots.

The wall did not splinter. Vans had by now concluded that he was in some ancient, deserted burial-ground, and was ready for a change of company. The wall, too tough for the powerful zekolos, yielded at once to the charge that remained in the dissolving ray. Atomic cohesion neutralized, its substance turned to gas where the ray touched it. A neat circle fell out.

Vans went through.

As he did so the place in front of him became, of a sudden, full of bright light. He blinked in a dazzling, cream-colored light that seemed to fill all space. A high-pitched wail of despair sounded in his ears.

* * *

WHEN the trapdoor opened under me, and I felt myself caught in a net, I guessed at once that I had fallen into a rat-trap. Martian rats are enormous, cunning creatures, and I am always liable to fall into traps prepared for them unless I am very careful. No doubt my body, as I walked along the tunnel, interrupted an invisible beam of infra-red light, operated a photo-electric cell and so set off the trap. Mars is full of such tricks.

The net swung downward on a long lever.

Whatever unpleasant surprise this particular trap had in store for the rats it caught, I did not intend to experience if I could help it. I drew my short sword and began to cut my way out. But the net was tough, designed to withstand the attacks of sharp and powerful teeth. I had to saw my way patiently through each strand. My rays I had thoughtfully left with Vans.

It was wasted effort. The net came down, landed, opened of its own accord. I stepped out. The net swung away.

I saw two glowing eyes above chisel teeth. A Martian rat, larger than any Earth dog, rushed upon me. Many rat bones were around. It was that cruel kind of trap that shuts the rats in a large cage with no food but one another. The hungry cannibal before me was sole survivor of many of his fellows.

I jumped to avoid him, but he turned in mid-air. He was old and lean and knew all the tricks of fighting. The ceiling of the trap was low, and I could not play my best trick, that was to jump high in the air, out of his reach. A desperate slash only half knocked away his paw, which tore my sleeve and deeply scratched my arm. I felt blood, warm and sticky, some of mine and some of his. I was cornered.

Half landing, he twisted convulsively, snarling, and was on me again. I had no time to judge my stroke, but could only stab out blindly. The blade ran into the flesh of his shoulder and snapped off. A paw struck my cheek a glancing blow, but I was too busy to notice whether it hurt.

My blow made him halt. He went back on his haunches, my broken blade sticking out of his shoulder, then launched himself in the air for a spring.

I tried to back, but was against the corner of the cage. The rat's body came down. I flung up an arm to shield my head from those teeth and claws, twisted my body away.

Down came the rat crushingly. I slashed, as well as I was able, at his belly with the broken sword. I felt it strike something, then my arm was

knocked aside and pinned.

I was helpless, pinned hand and foot by the rat's weight. His great chisel teeth gaped apart and leaped, so swift, at my throat. Those teeth could bite, I knew, right through an Earthling's thigh-bone at one snap.

Then, behind the rat, I saw a giant hand. Even bigger than a Martian hand. It picked the rat up in finger and thumb. I, being held by the rat, was lifted too.

The pair of us were flung, whistling through the air at tremendous speed.

CHAPTER II

Pirates of Venus

THE scream, like a shrill scream of fright, that greeted Vans Holors gave way to a sort of sobbing. Blinking in the strong light, he saw before him half a dozen of the oddest-looking creatures. A little bigger than he was himself, they were more or less human, but their bodies and limbs seemed to be rubbery and elastic, stretching and shortening at will. They stood in a line before him, bowing together so that their hairless heads touched the floor. Many-colored fungi grew on the floor and walls of the odd compartment. There was unfamiliar machinery here, too.

"Who are you?" Vans asked, puzzled.

They did not seem to understand, but just went on with their bowing and moaning.

Vans grunted with contempt and turned to make his hole larger so that the zekolos could come through.

A sharp squeal. An arm, elongating itself amazingly, reached out and snatched away the box that generated the dissolving ray.

This action Vans understood.

Shouting, "Give that ray back!" he rushed forward.

The elastic man who had taken the ray dodged behind the others. Vans managed to seize the creature, but not before it handed its prize to one of its companions. Vans turned to chase the second thief.

The compartment was now full of an excited squawking and chattering. Even then the party might not have got really rough if it had not been for the zekolos. The faithful creatures, no doubt thinking that their master was fighting for his life, reached through the hole and seized two of his assailants in their powerful pincers and began to drag them toward the hole in the wall. An elastic man picked up an implement shaped like an ax and tried to chop off one of the arms. Vans hit him hard. The elastic man flew through the air, struck the wall with a dull thud, bounced off and landed on the floor, unhurt.

The other elastic men rushed at Vans. Vans began to fight seriously. He rushed at them, hit two with tremendous blows of his mighty fists. Both went down and rolled over. But they got up again at once.

A puzzled look came into Van's simple face. He couldn't hurt these people. The heaviest blows of his mighty fists just sank into their rubbery bodies without harming them. It was out of all reason. Their arms, shooting out the way they did, gave them a reach that Vans felt was not playing fair.

A snaky arm coiled round his ankles, nearly bringing him down. He struck at it, but the elastic man took no notice of his blows. The air was full of clutching hands at the ends of ten-foot arms. One gripped his left wrist, holding against all his efforts to pull free. Another coiled around his throat and eyes.

That was the end of the fight. Vans found himself coiled round and round with thick ropes of rubber like a silkworm in its cocoon.

* * *

I FLEW through the air in the grip of the Martian rat, then suddenly we struck water.

We sank, but I felt myself free. I came to the surface, and saw the rat come up, look round and come at me again.

I had lost even my stump of a sword, so I turned and swam away. I knew I had not half the speed of the fierce rodent behind me. But a large object flew through the air and struck the water near the creature. It turned and made off in fright.

My rescuer was a giant man, bigger even than a Martian, who stood on a smooth stone bank watching me. His face and clothing were strange to me, unlike anything I had seen on Earth or Mars. I swam ashore, saying, "Thanks for the help," in Martian.

"You were lucky," he growled in a deep voice, neither friendly nor hostile, picked me up in a huge hand and began to carry me away.

We came to a large, tunnel-shaped room hollowed out of the rocks, full of strange furniture and equipment. My rescuer rang a bell and three more giants came in to talk about me in some strange language. I knew they were talking about me because they kept looking at me, and their looks were not friendly.

At last my rescuer looked at me and spoke in Martian.

"The others think I should have let the rat finish you," he announced. "You came here as a spy, if nothing worse. I saved you because I thought we could get information out of you. You had best give us all the information you can, or you will soon wish you had been left to the rat. Do you understand?"

"I am no spy," I said, "only a lost traveler."

"That sort of lie is not going to make things healthy for you. You talk the Martian language, yet you are only half as tall as most Martians and less than an eighth of the average weight. How is this?"

I explained that I was a native of Earth who had lived on Mars for several years.

He looked at the others, and they talked.

"Belangor says it is possible. What is your name? Where on Mars do you live?"

I said that my name was Don Hargreaves, and that I was son-in-law to King Usulor, Emperor and Overlord of all Mars.

He laughed nastily.

"You can leave out those lies. Who sent you here?"

"Nobody. I got lost in an uninhabited cavern and came down your shaft to find help."

"That sort of lie, Earthling, is not going to help you one little bit. Nobody has entered the cavern above our heads for a thousand years. Why should you enter it now? Who was with you?"

"I was alone," I said, not wanting Vans to be caught.

"You crossed those great swamps and forests alone?"

"Yes."

"And you came down the shaft alone?"

"Yes."

"Now we know you are lying. No man like you could do all that without help. And we will use persuasion until we get the truth out of you."

He reached for me. I dodged his hand. He frowned, reached again. I avoided him again.

The others were now coming forward, helping their friend get hold of me. But I always move too quickly for any lumbering giant of a Martian to get a grip on me. And I was too quick for these giants, too. I jumped clean over their heads, quite an easy feat in the light Martian gravity. Then, before they could collect their astonished wits, I ran through the nearest door.

THERE was no light outside the door. A long, straight cavern stretched before me with many doors. I went into the first. A bird cage hung about fifteen feet up. I jumped, caught the bars, opened the door and threw myself flat on the floor of the cage.

But I had not thought about the bird. It was a four-legged green bird some three feet tall, and strongly objected, it appeared, to Earthlings entering its cage. It began to squawk and beat its wings nearly fast enough to blow my hair off with the wind it made.

A giant looked in, said something to the bird, and went out, looking for me. A search for me was in progress, voices shouting, feet running.

My hide-out would have been an excellent one, if it had not been for my companion. Presently it plucked up enough courage to make a sudden peck at my leg. The razor-sharp beak cut a piece out of my trouser-leg. If only I had had my sword I'd have taught him better manners. But, the way things were, I just couldn't spare the time to fight that bird with my bare hands.

The bird was obviously getting ready for another peck. I opened the cage door and jumped out. That dratted bird, not satisfied with the damage he had already done, came blustering and squawking out, kicking up such a stink that loose feathers flew out of him all over the place.

I went out, feathered nuisance following. The passage was ablaze with light now, but for the moment empty. Excited voices were everywhere. I tried a door. Drat it! It had a queer lock I couldn't turn. Someone was coming. I dashed through a door already half open.

I was back in the room from which I had originally escaped. Four giants were arguing earnestly, and luckily not looking my way. There was a large box on the floor, and, dashing to hide behind it, I found the back open and got inside. A lot of apparatus here gave a faint buzzing. Careful what you do, Don, I thought, or you will get yourself electrocuted.

But I still hadn't got rid of that miserable bird. Presently the giants noticed it, and tried either to catch it or to drive it away. Anyway, it went away for the time being.

Then there was a lot of talking and coming and going by those giants and those queer flexible rubber-men. But they talked mostly in that strange language. I couldn't get much idea of what was going on here.

Then, on a wheeled table, another giant was brought in, a giant in Martian clothes badly torn and stained with the slime and muck of a hard journey and grim battles. He was coiled from head to foot in rubber ropes.

My heart sank in despair as I recognized poor Vans.

THE fellow who had questioned me began on Vans.

"Come along now. Tell us the whole story. Who are you, who sent you here, how much do you know about

us? You might as well tell everything, because your buddy the little Earthling, has already spilled the beans. We know it all, but just want to check up."

"You've got Don?" asked Vans, as though he could hardly believe.

"We have."

"I don't' believe it," snapped Vans stoutly, "Neither you nor anybody else on Mars could hold that little man for long. Unless he was unconscious. He'd slip through your fingers like water. Where is he? Show me him."

"Well," admitted the giant, in a nasty grin, "he *has* slipped through our fingers for the moment. But not for long. We are putting our trained rats on his trail. They will follow him by scent, and when they find him they'll tear him to pieces."

"Don will kill your rats with his sword."

"I think not. Your Don has lost his sword already in one fight with a rat. He was caught unawares in a confined space, and if I had not rescued him he would soon have been cold meat. I shall not rescue him again."

Just then the noise beside me became louder, a light came on, and a voice began to give the news in Martian.

I had hidden in a radio set.

"THE police are still without clues in their search for the two escaped husbands, Don Hargreaves, Earthling, and Vans Holors, wrestler. Listeners are reminded that a reward of ten thousand crowns will be paid to any person giving information leading to the capture, alive and unharmed, of these two men. Princess Wimpolo is herself adding an additional ten thousand crowns for anyone who can catch her husband for her," said the radio. (Right then I'd have given a fairly big reward myself to get the pair of us captured by Princess Wimpolo.)

Descriptions of the two of us followed, then the rest of the day's news.

"The semi-annual ball at the Imperial Palace was a great success, being attended by. . . . Some gloom was cast over the proceedings by the absence of Princess Wimpolo, who was unwell. A message of sympathy was sent, with the hope that her husband would soon be caught."

(That made me feel mean. Poor old Wimp was too upset to join in the dancing.)

"Rescue work is proceeding in the town of Horvin, recently overwhelmed by rock falls from a cavern roof. A serious outflow of lava is reported from the country of Cuspikor, and it is said heavy casualties may result. Good progress is reported in the campaign of the King of Ossalandok to rid that country of man-eating snakes."

A typical Martian day's news. Then came this:

"A very important item of news has just come in. A message on the space radio, interplanetary section, has been received by King Usulor, our Emperor and Overlord. It is from His Highness King Wyandott, Emperor of the cloud-wrapped planet, glorious Venus.

"Emperor Wyandott sends greetings to his royal friend, and wishes that every possible happiness and prosperity shall attend his reign. He also sends the information that the notorious Venusian pirate commonly known as Belangor the Butcher is still free, despite the efforts of Emperor Wyandott's space police to destroy him. Investigations, and the examination of radio direction-finding probes, prove that Belangor frequently eludes the patrols when approaching Mars. The facts seem pretty convincing that Belangor's hide-out is actually somewhere on the surface of Mars.

His Highness, the Emperor of Venus, requests that his police be granted permission to land on Mars and conduct a search for this blood-stained criminal. There has not yet been time for a reply to be sent, but a high official at the Palace stated today that it was quite possible that permission might be granted. Precedents exist for this. It is not considered likely that Belangor, if he is on Mars, will have penetrated below the surface of the planet."

Now I knew where I was and who these men were. Vans and I had blundered into the hide-out of Belangor, Venusian pirate. I had heard one of them mention the name. Yes, everything fitted. Belangor *had* penetrated into the underground world of Mars. And the elastic men must be still other natives of Venus.

WHEN the radio finished there was a buzz of excitement. One of the pirates came and took away the printed copy of the news that the radio had tapped out while it broadcast.

It was odd, in this beastly place, to get a direct message from Wimp, her dad and my friends. I wished I could send back to them. But this set, powerful as it was, was only a receiver and not a transmitter. Perhaps I could oscillate, though. The radio was of a type I understood reasonably well, no doubt a Martian set stolen by the pirates. Detaching the loud-speaker, I fiddled with the wires. Any listener tuned in to that wave-length now would hear a series of long and short whining noises. I transmitted in English, since it seemed that the pirates would understand any message I sent in Martian. And I had not yet learned the Martian Morse Code, anyway. My hope was that some of the little Earth colony that lived in or near Usulor's palace would pick me up.

"S.O.S. S.O.S. S.O.S." I sent, since that was the form of letters most likely to be recognized. "Don Hargreaves calling. S.O.S. S.O.S. S.O.S. I am a prisoner of pirate Belangor in a deep cave. S.O.S. S.O.S. S.O.S. Vans Holors is with me." And so on with the plenty more "S.O.S.'s." I could not tell where the cavern was, but only hoped they could get some direction-finders on the job and locate me more or less before I had to stop transmitting. And it was not long before I had to stop.

I could hear howls coming from loud-speakers in other caverns. The other sets of the pirates were getting the full benefit of my oscillating. Pirates dashed about trying to find out where the interference was coming from. Two of them came to look at the set I was hiding in. I thought it best to keep quite still. A hand began to operate knobs and dials. I thought it best to re-attach the speaker then. Music at once poured from the speaker, to the surprise of the pirates.

Just then three great rats came scampering in through the door, snuffing and squawking excitedly. They made straight for the radio set, one over the top and one from each side. I was trapped among the valves and components.

I managed to electrocute one, burning out valves as I did so. The others were too wily for me. They nosed their way through a now dead set. If only I had my sword, I would have made a fight of it. Or if I had been able to run. But here I was trapped. I took a long sliver of glass from a broken valve.

"Those rats will eat up twenty thousand Martian crowns," I heard a pirate say. "We are losing the reward."

"What of it? I would not give up the

secret of our hide-out here for twenty million crowns," another growled. Belangor, I suppose.

"No need to give up the secret," suggested another.

"What do you mean? Think we can let them go back and trust their promises not to talk?"

"Yes, if we send them back in such a state that they'll never talk again about anything any more."

"Wheeeee! You got something there. Collect a ransom, say twenty million crowns. I'm sure that Princess would pay that to save her dearly beloved husband from being cut up into little pieces. Then return him, same as we promised, but cut his throat first. Capital wheeze. Call those rats off."

Which they did, and not any too soon, either.

CHAPTER III

The Ace of Spades

BELANGOR hauled me out of the radio set. And his way of doing it was not a very nice one. He lifted me out by my ears. The pull on my ears and on my neck was pretty nasty. I felt so mad at him I could have spit in his eyes. And Belangor and all of them roared with laughter to see me kicking and struggling and trying to haul myself up by Belangor's wrists to ease the weight on my ears.

"So *you* are Don Hargreaves, are you?" asked Belangor. "Future Emperor of Mars? Well, you don't look much, anyway."

Another roar of laughter.

"Anyone went to buy an Emperor?" Belangor went on. "Going for one Martian sousa." (About five cents.) "Emperors are cheap today."

More laughter.

"No offers? Well I must admit he's a bit on the small side. And not too good-looking. Still, if he was well cleaned up he might look almost human, in a bad light. Of course, it's no use my trying to pretend he's sweet tempered. Not while you can see *that* expression on his face."

And a lot more like that, while I hung, squirming nearly all my weight hanging from my ears in Belangor's huge hands. Vans Holors, helplessly bound, looked on. I wasn't trying to fight just then. I was saving it up for Belangor.

Presently he got so pleased with himself with his jokes and the dutiful laughter of the "yes-men" round him that he got careless. He lowered me far enough for my toes to touch the ground. And I let him have it. Yes, sir, I kicked him. I planted my right foot squarely just where it would do most good. And when I say kicked, I mean kicked; not tapped.

Belangor didn't think of any more jokes after that. In fact, he didn't say anything you could understand. He just made queer noises as he leaned against a wall, opening and shutting himself like a pocket-knife and trying to breathe.

The other pirates were, for the moment, too amazed to do anything. But I knew that would not last long. I dived for the dissolving ray box, the one Vans had used, which had been brought in here and dumped beside his table. Whether these blighters knew what that box could do I can't say, but, anyway, they weren't taking much care of it.

One of the pirates said something, "Grab him!" I suppose, in Venusian. Anyhow, one of the elastic men plunked himself right in my way and put out his hands. I dived between his legs. Another one grabbed at me. I jumped.

I swear I cleared twenty-four feet in

that jump. But it wasn't enough. That elastic man just stretched himself, reached me and pulled me down. I have learned since that those elastic men can reach over thirty feet in the air when fully elongated, arms, legs and body. So it was useless for little me to try to jump over their heads, even though, on Mars, I weighed only about a quarter of my normal weight.

But I wasn't done. Not quite. I had a long splinter of glass in my pocket. I had got it from the broken valves of the radio set. A kick would not damage the rubbery flesh of that elastic man. He was too resilient. But a sharp edge could cut him, especially where he was stretched.

And it did; half through his arm with a rush of green, bubbly blood. He dropped me with a queer howl, and in a moment more I had doubled round him and got the dissolving ray.

"STAND back!" I bellowed. "This ray can kill all of you in one sweep."

Everybody froze.

I heard a whistle, but didn't know where it came from.

Through the crowd those three man-hunting rats, with glowing eyes, came leaping at me.

It only took a merest touch of the ray for each of them, and they all fell dead in mid-air, with deep gashes in their bodies and a queer smell in the air.

But the pirates were all round me. Those behind me might be seizing all sorts of weapons I knew nothing about. I swept my ray at the light hanging from the ceiling. It crashed. The place was in darkness.

I dashed to one side. Something crashed where I had been standing. I stabbed with the ray about where I judged the missile, whatever it was, had come from. There were groans. Something heavy fell.

I decided to try a little bluff.

"Now, outside, all of you! We Earthlings can see in the dark. Outside, or I'll cut you all down."

As I spoke I moved, so that anything aimed at my voice would miss me. Slowly, they all shuffled out.

I felt for Vans, cut his bonds and looked round the room by the light of his searchlight, still on his forehead. The place was empty except for one dead pirate and the dead rats.

Something whizzed past us.

I slammed the door.

"Prince!" said Vans, admiringly, "that was a smart bit of work. A real smart bit of work."

"Don't talk!" I said.

Outside I could hear Belangor gasping, "Gas them! Gas them through the ventilating system!" He was still half winded.

Three walls of the room were of solid rock, but the fourth looked more flimsy. I cut a large hole in it by means of what was almost the last bit of power in the ray, and looked through.

Darkness outside, and a gleam of water far below.

"Dive!" I said to Vans.

"Ah! But I am still cramped, Prince!" he said, but dived.

I followed, into almost inky blackness.

We landed in the same stagnant pool that Vans had first fallen into, with the giant fungi on the shore. Natural plants of Venus, I guessed, and the food of the elastic men.

The zekolos met us on the shore, and showed, by clicking their pincers together, how pleased they were to see us. The two elastic men were here too, whimpering with fright at having been captured by the zekolos, of whom they were terrified. They didn't un-

derstand Martian, but I made them understand by signs that I wanted them to show us a way out of here.

Swimming to a distant end of the stagnant pool, they dived deep in that unpleasant lake and led us under the water. To Vans and the zekolos the swim was nothing, but I was in distress by the time we broke surface once more. I had swallowed a lot of that foul water.

Now we were in a vast cavern, lighted by many orange lamps on standards. There was much activity here, elastic men bustling about, and pirates directing them. These unfortunate elastic men were, I afterward learned, Venusians who had been captured by the pirates and forced to work for them as slaves. The pirates, I know now, were originally Martians who had left Mars countless years ago and gone to Venus where they dominated the timid, peace-loving people of that planet until the Venusians finally drove them away. Or at least, they were the descendents of those adventurers.

"Look, Vans," I said. "The pirate ship!"

AND it *was* a ship! It was the shape and color of the ace of spades.*

It had no portholes, only four glassite observation bulges. Who wants portholes in a space-ship anyway? There is nothing to see in space, anyhow, except stars.

But it was the color of the ship that proved it to be a raider. It was black, dull black, except that white dots had been painted all over it to represent stars. Such a ship would be as good as invisible in space, against a background black and star-sprinkled.

Space camouflage! An Ace of Spades ship!

Such a ship, rocket drive shut off, could creep upon its unsuspecting prey, unseen until the moment came to strike. Belangor, the Butcher, left no witnesses.

The black ship lay now on her side, resting on three large wheels arranged in a triangle. Each wheel rested in a grooved metal runway that vanished in a distant round, black hole.

"That's the way out, Vans," I mused aloud. "That tunnel obviously leads to the surface of Mars."

"That way out is no use to us, Don," said Vans sadly.

"Maybe. Or maybe not, Vans. We've got to think up some plan."

"My head's just splitting with trying to think up plans," said the simple fellow. "I've got such a sharp headache through trying to think up plans I could shave with it, if I had some soap."

"Let me think aloud then, and don't interrupt."

The two elastic men were stretching themselves out on the ground. Feet hooked round rocks, they stretched their bodies and hooked their fingers into crevices nearly forty feet away. They looked certain to snap any moment with the strain of so much stretching.

Suddenly, "Whang!" "Whang!"

Now they *have* snapped, I thought.

But they hadn't. They had simply unhooked their feet. The flying back of their bodies, stretched so tightly, sent them shooting through the air like stones from catapults. Such was the release of tension that they landed about a quarter of a mile away, got up and went to meet their fellows.

They had escaped us.

* The shape was a cone with a hollow base. The advantage of this shape is that it brings the center of gravity well back, behind the center of drive. The ordinary cigar-shaped space-ship has its center of gravity too far forward. It wobbles, rolls, spins and vibrates, and is difficult to control. It behaves as though it is top-heavy. This ship would be much more stable and comfortable to ride in.—Ed.

Timid creatures! Vans' enormous fists could not hurt them, but they feared the pincers of the zekolos, which could cut their bodies in halves. Let them go. They were no use to us.

"No, but they'll tell the others where we are," Vans objected.

"And when the others get here we'll be somewhere else."

In the enormous cavern, lighted only in one or two places, it was possible to move a long way under cover.

"No search party could hope to find us among all these rocks," I said.

"And the trained rats?" Vans asked quietly.

"HELL!" I said.

Vans seemed to think I had some scheme ready to deal with the pirates' rats, which would smell us out like bloodhounds. I hadn't.

"Ride on the zekolos," I suggested. "They may have given the rats the smell of us from articles of clothing we may have lost, but I do not see how they can have given them the smell of the zekolos."

But they had, somehow. Presently we could see almost the whole population of the cavern after us, led by rat-bloodhounds on leashes. And searchlights, from the "dock" where the pirate ship lay, probed the rocks for us ahead of the party. But Vans knew a trick to beat that. At the proper word of command the zekolos reached up and began to travel upsidedown on the cavern roof, though how even those huge pincers of theirs managed to support the terrific weight of Vans Holors I do not know.

Anyway, we gave our pursuers the slip. The space ship looked almost deserted now, nearly everybody having joined in the chase of us. And suddenly the plan I had been looking for came into my head.

"Vans," I said, suddenly. "We've got to stow away on board that ship."

"And what'll we do when the ship is in space? Mutiny, overwhelm the pirate crew and capture the ship? Or make ourselves parachutes and jump out?"

"All right," I said, offended, "if you can think of a better plan, let's hear it."

But, as a matter of fact, Vans was probably serious. He was brave enough, and dumb enough, to try either of the suicidal plans he spoke of, if only I had told him to.

So, carefully working our way round to the side where there were no people, we managed to get on board. We would not have done it so easily if the ship had been properly guarded, of course, but it was not. I suppose, in that secret cavern, Belangor saw no reason why guards should be kept round the ship. Served him right for being so careless.

So, Belangor's ship carried some cargo he hadn't contracted for. And it didn't take us long to find hiding places. When a space-ship is stocked up for a journey there are always plenty of hide-outs among the stores, fuel containers, air purifying plants and what-nots generally.

We passed a radio set on the way, with a printed copy of the latest news, just tapped out, lying beside it.

"Gosh, look at that, Vans!"

"THIS is Usulor, Emperor of Mars, speaking," I read.

I could just imagine that mighty voice roaring the words out of the loud-speaker, but on the paper, of course, it was just ordinary, cold printing.

"I have a message for Belangor, known as Belangor, the Butcher, renegade Martian and slaughterer of the people of Venus. Are you listening, Belangor? Then hear me. I have you

in my hand. The whereabouts of your secret hide-out on Mars is known to me. Its position is," here he gave a latitude, a longitude and a depth below the surface. "Is that right or is it not, Belangor? Then know that I have you in my hand, and that that hand is about to close.

"I also know that my son-in-law, Don Hargreaves of Earth, and his friend and guardian, Vans Holors, are temporarily in your power. Note this, Belangor, and note it well. Unless these two are returned to me alive and unharmed you will regret it, Belangor. Note well. I say you will regret it, Pirate of Venus."

"So you are my guardian, eh?" I said to Vans.

"Well, ah, bodyguard actually. You see, the Princess was a bit nervous about you. She said to me, 'You know, Vans, that little husband of mine, Don, is a bit adventurously inclined. I want you to attach yourself to him quietly. If he goes anywhere see that you go with him to protect him. He trusts you! So I agreed to, but promised to say nothing to you about it." The massive Martian almost blushed in embarrassment.

Me, reckless! The ideas these women get! Then I laughed. It was my bodyguard who had blundered me into danger, and protecting my bodyguard had been one of my chief worries ever since I arrived in this place. Vans didn't think so, but never mind that blunderhead's opinions.

We hid ourselves in the pirate ship, me, my "bodyguard" and our two steeds, the zekolos. We found supplies of food and water, and made ourselves at home for a day or so. Of course, iron crates and pipes do not make exactly the best blankets or pillows. We couldn't cook but had to eat everything cold. We could talk only in low voices and had to be always watching the zekolos to make sure they didn't wander off and give us away. But apart from these and other minor annoyances it was not too bad.

WE COULD hear vigorous activity going on round us, and once or twice heard pirates talking to one another. Most of it was not interesting.

"Can't you get those something'd elastic men to load the ship quicker? The boss is in a towering rage," I heard one voice, one day.

"I've never known him in such a hurry," grumbled the other.

"Haven't you heard? Our hideout is known to the Emperor of Mars," said the first, excitedly.

"And so what?" growled the second, unimpressed.

"Usulor's army will be here soon!"

"Oh, yes? After they have tunnelled through two hundred miles of solid rock," said the second, scornfully.

"What about the shaft leading to the surface of the planet?"

"That goes up at such an angle that it reaches the open over three hundred miles away from here. *And* it's well hidden. Oh, I'm losing no sleep over the chance of their finding *that*. Or over the chance of their sending an army down it. Why, it would be suicide. We'd blow up both ends of the shaft and leave them to suffocate."

"All the same, the boss is clearing everything out of here. Fair stripping the place. All the treasure, proceeds of hundreds of years of work." (Loot, piracy and murder, he meant.)

"I reckon the boss wants to transfer it to his other hideout on Earth's moon. They say it's an even bigger and better place than this. It'll take several trips to transfer all the stuff and the people."

"What about this Earthling, Don, and that wrestler?"

"Oh, forget them. I reckon they are dead by now. Or soon will be. Either they got drowned in that stagnant lake, or else they tried to return the way they came. If they are still about here they'll very soon starve to death. That's a *sure* thing."

Which disposed of us very nicely.

CHAPTER IV

Wyandott's Patrol

SOME time later the loading was finished. We heard exit ports slam, shouted last-minute orders, signal bells and whistles. Then the low whine of rockets, and the ship trembled under us forcefully.

"Vans, we're off!" I said.

"You're telling me!" he rumbled.

"Wish I could see out!"

But I could imagine it. The black, speckled ship, shaped like a giant sting-ray, was running on its three wheels along the runways, through and along the tunnel, toward the surface of Mars. Almost level at first, the tunnel would become steeper until we finally burst out into space almost vertically.

I found a porthole, and was able to look out. I had been mistaken when I said there were no portholes. There were, but they had been painted over, only very tiny holes being left, looking, from another ship, like so many stars.

The disk of Mars was falling away behind us, the sun appearing from behind it.

"Vans!" I said sharply, "We've been seen!"

A ship, shaped like the pirate ship but painted orange instead of black, was rising after us. A moment later several others came into view.

The fleet of Emperor Wyandott of Venus had sighted its enemy.

ERZIM KOFFIL, leader of the fleet of Venusian patrolcraft, snatched the report from his aide-de-camp and scanned it in one glance. He gave a whistle of satisfaction.

"It is Belangor, at last! Tell the entire fleet to converge upon him at once and attack. We will be rid of this scourge."

In his rubbery heart were unpleasant qualms. For the Venusians are men of peace, with no love of war and slaughter. But this was grim necessity. He must hide and fight down his sickness at the thought of killing. He must drive himself and his men.

Presently, he saw the rocket exhausts of a ship speeding away from him. Odd, he thought, but he could not see the ship that produced the exhausts. Only the red flares. He wondered if he was going blind. He must have his eyes tested when he got back to Venus. He hoped his men could see the pirate ship, even if *he* couldn't.

He began to radio to the stranger.

"Who are you? Answer, or we fire!"

No answer came.

"All right. Let him have it!"

At once the distant exhausts faded and died. Nothing was to be seen. The black vault of space seemed empty, except for the stars.

An odd, uncanny chill ran the length of Erzim Koffil's elastic body.

"He's vanished!" he thought. "It's magic!"

All the gunners on the Venusian ships were in the same confusion.

"What can we fire at? We see nothing," they asked.

Then an object like a very small space-ship appeared, only three feet across. It was that deadly weapon of space fighting, a radio-directed rocket shell. It streamed across the void and struck one of the patrol ships, penetrating the armor and exploding inside

"Epheu!" gasped Erzim Koffil. "Shells that come out of nowhere! This is witchery!"

Another shell streamed out. Another patrol vessel was crippled. And another. No shells missed, because the radio-operator, sitting aboard the unseen craft, could direct them right or left, up or down.

"Peuff!" exclaimed Koffil. "I shall have no sound ships left! This is like sitting in the dark and being shot at. I can't see my enemy to get at him! Call all the patrol ships off! No sense in getting wiped out without doing any good."

Then a curious phenomenon caught his eye. Among the stars in the sky appeared a white glowing line. Then another and another. Presently a round luminous object had appeared, a completely new heavenly body where all had been darkness.

VANS and I had scraped the paint off that porthole window.

"There he is," yelled Koffil. "At him!"

For now, very faintly, he and all his fleet could see, around the new luminous heavenly body, the outlines of a black ship.

"Funny!" Koffil muttered under his breath. "He seems to be on fire. A lot of black smoke is pouring out of his rear."

The black smoke grew to a vast cloud in which the pirate ship was soon again lost to view.

"A smoke screen!" exclaimed Koffil. "Boys, he's got us beat. I shiver to think what Emperor Wyandott will say."

* * *

"BELANGOR has pulled a fast one with his smoke screen," I said to Vans.

In one way, perhaps, it was just as well. Because, if the radio-controlled rocket shells of the patrol craft had got the pirate properly we would have gone west with it, in all probability. But now we were in a worse jam. If Belangor got away he would scour the ship to find who scraped the paint off that porthole. And I wouldn't like to be in the hands of that gentleman when he was in a real temper.

"Stay here, Vans," I said. "I'll be back soon."

"Where are you going?"

"Out for a stroll."

I slipped along a darkened corridor, dodging into darkened doorways. Being so small among these giants, I can dodge about among them without being seen where a man their own size would be caught. I was looking for the place where the smoke for the smoke screen came from.

Presently I found it. But there were two men there. I had hoped to find only one.

Seizing a chance, I slipped in and hid under a table.

"What was that noise?" one asked, looking round.

"I heard nothing," said the other.

They went on working, pouring the smoke out of the ship to enlarge the cloud.

Ten minutes I waited. Thirty. I got badly cramped. The worst part of it was having to be absolutely silent. I wanted to scratch, I wanted to sneeze, I wanted to cough.

At last one of the two went out. I let him get well away. Waiting my chance, I crept out from under the table.

I leaped.

A crack with a spanner on the head of that pirate. He fell backward. I wrenched the funnel of that smoke-machine apart. The smoke poured into the room.

The hole leading outside I plugged with the pirate's hat and some cleaning rags. Then I ran out, choking in the thickening smoke, taking a chance of being seen, back to Vans.

"Don't ask questions now!" I told him. "Find the fire alarm system! Make it ring. Make them think the ship is on fire!"

I found an intercommunication 'phone for alarm calls, and bellowed into it, "Fire! An enemy shell has hit the rear of the ship! We are on fire! Run for your lives!"

Fire in space! It is one of the worst terrors known to man. It destroys the air-supply, detonates the fuel-compartments. There would be an instant mad scramble to get off the doomed ship.

Within ten minutes Vans and I were alone on the ship, apart from our unconscious prisoner.

A SPACE ship oddly like the Ace of Spades, not too expertly handled, landed on a smooth stretch of Martian surface and slowly came to a standstill after running around awhile on its three wheels. A Martian ship, summoned by radio, landed alongside, and four space-suited figures came out.

I let them into the black ship.

They were Usulor, Mrs. Holors, a soldier, and—Princess Wimpolo.

She put her hands on her hips and looked grim.

"Well, what have you got to say for yourself?"

"My love," I said, licking my lips, "I present you with a complete pirate ship, rather sooty perhaps" (I had had difficulty in turning off the smoke), "but in excellent working order and with a fabulous treasure, so I am told, on board. In addition Belangor and most of his men are scattered about the void in tiny rocket lifeboats, and should very soon be all mopped up, and I can lead you to where the rest of Belangor's men, treasure and equipment are hidden."

"Not a bad job," Usulor admitted.

"And *that*," Wimpolo said, "is your only excuse for running away from me! All right! See if you get a chance to do it again! Just see if you get a chance!"

As I said before, Festus, you think I am lucky, don't you? Being married to the first lady in Mars, daughter of Emperor Usulor. You ought to be married to a woman who is nearly ten feet tall and weighs half a ton!

You'd have a different idea of it then.—*Don Hargreaves.*

THE END

SEAPLANE IN DANGER

By CARTER C. WAINWRIGHT

ONE of the greatest perils undergone by seaplane pilots is the task of landing his plane safely on water when it is smooth as glass. In these cases the pilot cannot judge his distance from the water within 10 feet and in some cases within as much as 50 feet. His judgment is further thrown off if the coast line or horizon is "blacked-out" by fog or haze so that he has nothing to indicate his height.

The old method of landing was for the pilot to nose his ship up at an angle above the horizon and "dump" his ship onto the water. This, however, greatly shortened the life of the ship since the bottom often struck the water with a force that was much greater than was necessary.

After much experimentation with various devices, it was found that if the pilot would cruise at a low altitude and throw some newspapers on the water he could judge his height very accurately. Another system used is to drop stones into the water and judge heights by means of the ripples produced. These very elementary discoveries have greatly lessened the hazards of our flying boats as well as increasing their useful life.

BAT-SCIENCE

By ELLIS WHITE

BATS flying about through an old deserted house with the wind howling in the trees and rain beating down on the roof is usually chosen as the opening scene for our movie thrillers. From these experiences, we all assume that bats only inhabit old, deserted houses and seem to always attend things of mystery. Well, nothing could be further from the truth.

The reason bats tend toward nocturnal habits is that they are relatively defenseless and thus spend the day in hiding. Some spend the day hanging from the higher branches of trees as in the case of the Indian flying fox. The Australian bats spend the day hiding away in the tea-trees or mangroves located in impenetrable swamp lands. The smallest of all bats, the Tylonycteris pachypus, found in the East Indies spends the day in the hollow joint of a bamboo stem. The American bat, on the other hand, is the most sociable of all the species and spends the day in between the walls or roof and the outer sheathing of houses. However, the greatest proportion of bats tend to live in caves

For food the bats enjoy a great variety of insects especially those who also have nocturnal habits. There are also vegetarian bats and those who are not too particular and will eat both insect and/or vegetable.

Probably the fussiest eater of all the bats is the vampire bat of South and Central America, who thrive exclusively on the blood of other mammals or birds. Of course, they are not particular as to whose blood they live on just so long as it is nice and fresh—preferably from a wound that they have made themselves. The vampire bats are probably the most ferocious of all the bats and will attack a herd of cattle, mules, horses, or goats during the night. If necessary, the vampire will even feed upon human blood.

The mark of the vampire bat is always the same—a shallow and clean-cut scoop into the flesh from which the blood will flow for a longer period than from the wound of other carnivorous animals since the blood cannot clot as easily. The wound of the vampire is not painful and many of his victims, either human or animal, will go right on sleeping while the vampire has his meal.

The vampire waits until his victim is asleep and then swiftly makes his incision into the flesh. On humans, the favorite points of incision are the nose and toes since they are usually uncovered. Upon awakening in the morning, men in the tropics have often found a slight wound on their toes, nose, or fingertips with blood still trickling from the wound.

The vampire is very considerate in that he never kills his victim but he has been known to seriously weaken some animals after repeated attack. In some cases, cattlemen and sheepherders have been forced to move to new grazing lands only because of the frequent vampire attacks.

Bats vary in size from the huge flying foxes of Java and the Philippines with a wing spread of over fifty inches to the small East Indian bat who, when curled up, is no bigger than a man's thumb

No one knows how long ago the bat became the only flying mammal besides Dumbo but evidence proves it was over 50,000,000 years ago. Their bodies are peculiarly adapted to flight and resemble those of a bird rather than a mammal. They possess a short neck, strong chest muscles, a tapering abdomen, slender hind legs with knee joints that are reversed, and no fur on their wings all of which decreases air resistance and enables them to fly.

Despite popular belief, the bat is not blind but has eyes possessing most of the elements found in the eyes of other mammals. He possesses an internal ear which is very sensitive to sound which enables him to avoid hitting obstacles during flight or to catch insects for food.

Bats possess very excellent memories as to their places of hibernation and will return to exactly the same spot in the same cave autumn after autumn even after spending the summer in some far off place.

Bats are peculiar in that although they are quite sociable towards their own species they never-the-less always keep other members of the group at arm's length. A truly interesting experience is to be had in watching a large group of bats return to their daytime roost. The first to arrive select, of course, the favorite spots and have to continually resist the attempts of the late comers who wish to encroach upon their desirable resting place. The din finally becomes deafening before the entire colony is finally settled for the day. When twilight approaches, the bats all awaken, clean their fur, stretch their wings a few times, give a few screeches at the late comers who might have encroached upon their resting place during the day, and then fly off in groups of two's or three's, or perhaps by themselves in search for their evening meal.

VENUSIAN SLAVE SMUGGLERS

By JEP POWELL

The jungle was crowded with queer animals of all sorts

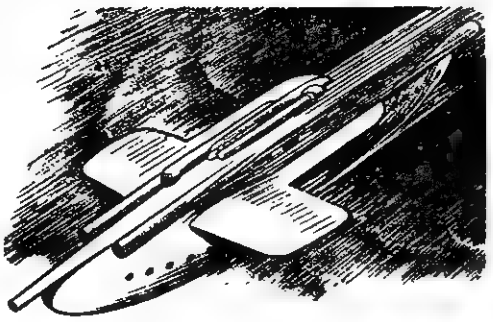
THE Heliotrope settled down easily on the spongy muck bank that was the landing field of Umbawa, dreariest spaceport on the dreary planet Venus.

Captain Ogden reached for his heavy slicker and boots without looking outside. He did not need to look. If it were not raining, he would think he had hit the wrong port.

I followed suit, along with four others. We stepped out into a steady warm drizzle.

A wild-eyed Earthman broke through a clump of naked, timid natives and raced down the slippery footpath to meet us. He came on recklessly, frantically.

"Thank God! Oh, thank—a ship—an Earth ship at last — thank God!"



"Give me a berth — please!" he begged. "I know a little astrogation but I'll scrub plates, polish tubes, anything to get back to Earth. I don't want any pay. I'll even pay you. I've got a little money."

I thought he was going to grovel in the mud.

The Heliotrope took aboard a load of trouble when she shipped these abok slaves of Venus. And she took still more aboard with this young American who had ideas like Lincoln about slave trading, and carried them out, too!

he babbled crazily, half laughing, half crying.

He was not much over twenty and his clothes and clean shave showed his effort at neatness, a virtue that stamps a man as a tenderfoot in this languid, careless region. His accent stamped him as an American.

What was an American doing here in this out-of-the-way place?

There's something about seeing a man in straits like that. Something that rouses both pity and disgust. If a man can't take it, he shouldn't be batting around the planets — especially Venus. Venus is a tough world.

"Please take me on! Take me away from here!" he begged.

I suppose it was natural that he addressed his plea to Ogden. In spite

of his slovenliness, Ogden had the air of a boss about him. His nickname, Shag, described him. Huge and hairy, with pugnacious red mane and a neglected beard that failed to conceal his cruel features.

Shag bored him with a steady stare, but the young fellow did not flinch. Shag spat out of the side of his mouth without turning his head. "What's your name, sonny? How long you been here?"

The stranger did not like the "sonny" but let it go. "My name's Walton Bryant and I'm from Illinois. I don't know how long I've been here. I lost track—these eternal days and nights."

With a name like that, I thought, the kid already had two strikes on him in Shag's estimation.

"Where you been holin' in?" Shag asked.

"Big Mama's. It's the only rooming house . . ."

Shag smiled obscenely and winked.

"No, no!" the kid declared. "I couldn't touch . . . ugh!"

Shag gave him a knowing nudge. "Get on in the ship and tell Con Morris I said sign you on."

I was surprised. Sympathy was an unknown word in Ogden's vocabulary. But he was as unpredictable as he was mean. Maybe he had a motive -certainly not a good one. I had a feeling that this was a sad day for the youngster.

AS WE moved toward the settlement of shacks on stilts, some of the froglike natives dived into the slough beside the path and stayed under. Others hopped off the path and stood belly deep in the murky water, eyeing us apprehensively.

We were not a sextet to inspire confidence. There was Engineer Luis Ruiz, swart and slinky, with a deep scar running from mouth to ear that gave him a perpetual leer; Tyler Taylor, cockney Englisher, whose sunken lids of an empty eyesocket did not enhance his cross-hatched visage; Alex Robikov, sad-eyed Muscovite, whose size alone was awesome; and Max Gensler, carefree krautkopf who fought for the sheer love of it. I was the only misfit, a rolypoly runt with scarcely enough bravado to scat a kitten.

Ogden led the procession to a small building covered with asphalt roll roofing. A grinning native trader, wearing only a pair of faded trunks, sat crosslegged on the roofless porch, heedless of the rain. He stood up lazily and greeted us, then followed us inside.

"Hi, Jo, how's trade?" Shag asked, offering a vile cigar.

"Zhot to hell." Jo beamed as if happy about it. "Got zome fine bokkamee.* Want to zee?"

"I'll look at it later. Seen anybody I know?"

"Long time no zee him," Jo replied significantly.

"I'll ask Big Mama," Shag grunted. "Come on, gang."

We slogged over toward the most pretentious house in Umbawa. A couple of the fellows quickened step eagerly.

As we shucked off slickers and boots on Big Mama's porch, the door opened and a tawny-topped creature ducked down the hall, uttering a funny little squeal. We went inside.

"Shag! Lawd bless yo' sinful heart. Come in, Honey," Big Mama whinnied. A white-toothed grin split her round, black face but she made no effort to remove her amazing bulk from the large chair into which it was

* Bokkamee, the crushed and dried bodies of a rare insect found only in certain regions of Venus, is made into an expensive perfume.—Ed.

wedged. "When dey tole me it was de Heliotripe landed I was happy enough to shout."

Shag gave her a fond slap on the shoulder and a ripple traveled over her vast expanse.

"Where is Florabelle?" Ruiz demanded.

"She upstairs primpin'. Dey all is."

A tawdry little abok* sidled shyly in the door. She was wearing a sleazy gown of bilious yellow that swept the floor, hiding her spindly legs and webbed feet. Her hairless, froggish head was ensconced in a wig of flaming ringlets.

Big Mama always dressed her aboks in Earth styles, some of forgotten vintage. She called them her "girls" and gave them fancy sounding names.

"Come on in, Elvira," she invited. "Meet de gentmuns. Dey's fun where I come fum. Whyn't somebody oil dat juke awgin?"

SOMEBODY put a coin in the slot and music blared. Two more garish aboks entered. They were Anastasia and Theodosia.

"Bring on some drinks," Shag ordered. He leaned over and mumbled something to Big Mama.

"Dat no 'count Wog?" she snorted contemptuously. "I ain't seen 'im in a coon's age. Don't keer if I never. . . ."

"Eh, Capitan, what is this?" Ruiz cut in. "You are looking for that slavemonger, Wog? For sure you are not. . . ."

"What if I am?" Shag growled. "Live cargo pays plenty."

"I do not like it," Ruiz declared. "I did not sign on this trip to smuggle slaves. It is dangerous business."

" 'E's right, Cap'n," Taylor chimed in. "If the blinkin' Venusian government caught us, we'd all 'ang for it."

"So what?" Shag challenged, his beard jutting menacingly.

"So I jump ship," Ruiz retorted. "I did not sign on to. . . ."

Shag dropped him with a crunching haymaker and turned on the others, huge fists ready. "Any more of you mangy space rats got mutinous ideas?" He glared especially at Taylor.

Ty moistened his lips, started to speak, then stopped.

I was thinking about young Bryant. My lips must have framed a protest unconsciously.

"What the hell you got to say about it, Sawbones?"

"I was thinking about the kid you just signed on," I managed weakly. "Surely you wouldn't ring him in on. . . ."

"He didn't ask no questions when he signed, did he?" Shag spat. "He'll share ship's luck same as the rest."

CHAPTER II

Nostalgia vs. Lack of Guts

I'M NO saint. Far from it. I was kicked out of the association for what it considered unethical practices. Then my license was revoked. That's how I came to be ship's doctor on a disreputable tramp like the Heliotrope. Probably my record appealed to Shag. But I had something left where my conscience ought to be. So I slipped away from Big Mama's and went back to the ship to warn the new kid about Shag's slave-running plan.

"Son," I said after the introduction was disposed of. "Son, this is a pretty tough gang on the Heliotrope. Half of the crew probably are 'wanted' somewhere or other. Not a very nice

* Abok is the female Venusian. Bok is the male.—Ed.

bunch for a likely young fellow like you to travel with. And Captain Ogden's no better than the rest. Trading and hauling miscellaneous freight is his business, ostensibly, but I wouldn't put it past him to turn his hand to anything that would bring in money."

Somehow that was as close to the real truth as I could come. Somehow? I may as well admit that it was a shuddery fear of Shag that held me back.

"But you're with them, Doctor—er."

"Just call me Doc," I said. "Yes, but I'm not proud of it. It isn't so bad for an old has-been like me, but you've got your life ahead of you."

"I'm just signing on for a trip back to Earth," he said. "Do you know how long I've been in this God-forsaken hole? Of course not. Neither do I. Lost track of time. Days that last forever. I don't know how many of them. I spent most of them looking at that eternal cloud blanket up there. Just looking and hoping for an Earth ship to come.

"And these long black nights." He shivered. "If I could just look into a starlit sky and see Earth shining up there, maybe I wouldn't feel so lonely, so utterly cut off from the universe. I've got to get back to good old Earth." He paused, then added, "I've got a girl back there."

"M-m-m;" I commented. "What brought you here, son?"

"Did you ever lie on your back in your front yard or somewhere and gaze up at the night sky, feeling an overwhelming longing to visit the planets?" he asked earnestly.

"Never did," I replied. "But I think I understand."

"I just had to come," he explained. "Jane and I talked it over—we're engaged, Jane and I. Not formally, but we've agreed. I told her about this yearning to make a space trip, just one. We decided it would be better for me to take it before we were married. I wanted this one trip to cure me, give me a bellyful. So I came here." He took a deep breath. "I've got a bellyful, all right. Now I've got to get back.

"She's a Georgia girl, Doc, the swellest girl in all the world. Well, that's my story," he finished. "Now do you see why I've got to leave on the Heliotrope?"

I sat there hating myself for not telling the whole truth. This boy was no ordinary drifter stranded in an out-of-the-way port. He had good stuff in him. I could see that. Good, clean features and earnest grey eyes. I guess he was handsome in a way. Good height and athletic. And I could see that Georgia girl yearning her little heart out just to tangle her fingers in his reddish brown hair that wouldn't stay put.

"Son, there may be another ship in here soon, a better one," I persisted weakly. I knew nothing but the truth about Shag's slave-running scheme would stop him—even if that would—and I knew I didn't have guts enough to tell him that; didn't have guts enough to cross up Shag.

"Except for a couple of battered old Martian boilers headed out the wrong way, there hasn't been a ship here since I came," he declared. "No, Doc, I wouldn't trade my berth on this ship for a gold mine."

CHAPTER III

Wog's Jealousy

SHAG'S cut-throat space rats quickly reconciled themselves to the slave-running idea. Live cargo would be far more profitable than the bokkamee and

medicinal swamp roots we would be able to pick up. And the crew would share in the bigger profits.

The big danger lay in getting the illicit cargo out of Venus' territorial ether, and fear of this danger dwindled as Big Mama's supply of caustic Venusian hooch diminished. Once outside the perpetual clouds that surround the planet, Shag assured them, not a ship in the Venusian space patrol could catch the fast, albeit outwardly decrepit Heliotrope.

Time is cheap on Venus and appointments are made by the calendar, not by the clock. The Venusian day is a month, measured in Earth time.

We waited three whole Earth days for Wog, the slavemonger, and for three Earth days * Big Mama's juke organ grated its tinny tunes as steadily as the rain pattered.

Except for a quick trip to Big Mama's to transfer his few clothes and things, young Bryant stuck to the ship as if he feared it might run away and leave him. None of the crew took time to tell him about the slave running. They were too busy enjoying themselves at Big Mama's.

On the fourth day, Wog arrived, a foppish mulok ** garbed in a screaming plaid suit, spats, soiled grey derby, and carrying a jaunty cane.

Wog strutted into Big Mama's but the aboks ignored him in spite of his finery. Florabelle was the only one who ever noticed him and she now was clinched with Ruiz in a somewhat dubious bit of ballroom terpsichore.

Wog scowled and strode toward the struggling couple.

Taylor nudged me. "Maybe trouble. Wog's soft on 'er, 'e is."

Wog snatched Florabelle's shoulder and spun her around to face him. "Wog here now," he announced arrogantly.

The next moment he and Ruiz were grappling on the floor. Sharp curses and throaty grunts were punctuated by shrill abok screeches. Twice Wog's sharp claws raked Ruiz's face and brought blood. Ruiz wriggled free and gained his feet. He plunged his hand into his shirt and drew an ugly dirk.

Shag's hairy hand shot out and seized the knife arm. His other fist smashed into Ruiz's mouth. Ruiz staggered backward and sat heavily in a corner. He spat out a tooth and glared murderously at Shag through slitted eyes.

"Next time you start your knife play, you oily spig, don't pick somebody I got a deal with," Shag growled.

CHAPTER IV

Bogs, Banshees and Blood

RUIZ did not make the trip inland to pick up the slaves. Shag wanted no trouble between him and Wog. He stayed on ship with Con Morris, the captain's right-hand thug.

Before leaving, I cautiously slipped Ruiz a couple of pills. As ship's doctor, I was the only one aboard who knew Ruiz was a needle pusher. Following a tube explosion on a previous voyage he had stayed under the influence of morphine for weeks. He became an addict.

Shag armed us to the teeth and split us into two large collapsible bateaux he had stowed in the ship. I was in the bateau with Bryant. Still thinking it

* From this point throughout the narrative, time will be reckoned in Earth days and hours. —Ed.

** Wog's mother was an abok and his father was a man, Hence he was a mulok, a hybrid despised by men and Venusians alike.—Ed.

was a trading expedition, he was puzzled about all the arms.

Outboard motors, popping deafeningly in the heavy atmosphere, shoved us up the bayou and into a narrow, shallow creek. The rain had stopped and a steamy mist was rising. When water is not falling on Venus, it is rising, always causing a suffocating mugginess.

Into the festering swamp we pushed toward Kabog, dismal realm of the planet's most aboriginal tribes. Our staccato kickers drove chattering birds to the air and small saurians splashing for the banks. Progress was slow, as we had to push our way through islands of floating hyacinths and stop many times to untangle their rubbery stems from our propellers.

With each turn in the stream the gloomy swamp grew more foreboding. Most of us had visited Venus many times and some had stopped at Umbawa before, but none of us—indeed few Earthmen—had ever ventured into the fetid Kabog wilderness. We were jittery and silent. Even Wog, squatting in the front bateau, seemed nervous.

The lead boat came to a crunchy stop on a mud bar and we swerved just in time to avoid ramming it. We, too, slid onto the bar. Our propellers churned the dirty water frantically but futilely. We were stuck. We cut our motors and an eerie silence seemed to close in about us.

Wog lifted his head and trumpeted an abysmal croak that echoed mournfully through the swamp. Presently a faint answer penetrated the gloom.

"We wait," Wog announced. He closed his popeyes and dozed.

"Blimey hif I wouldn't swap plices with any doomed bloke in death row," Taylor quavered. "It's downright gharstly 'ere."

Bryant was shivering like a wet pup, but he pressed his lips together into a grim line. Then, "What is there to be afraid of?" he managed in an almost even voice.

None of us answered. I suppose we were afraid our teeth would chatter. The kid gained some respect, then and there.

What was there to fear? Possibly a band of screeching, clawing boks, attacking like submarines, upsetting our bateaux and tearing us to pieces in the water. Or a herd of large carnivorous sauirans. But Ty Taylor had expressed it well: The place was downright ghastly.

Shag took a furtive swig from a pocket flask.

There was a splash up the creek and our guns came up, trigger fingers twitching. Wog set up a guttural chatter. An answer came through the foliage.

"All okay," Wog told us.

TWELVE bulging eyes appeared in a row above the surface not twenty feet in front of us. Wog beckoned. Six boks stood up but ventured no closer. The water reached only to their hips. Wog beckoned again. They looked at us uncertainly.

At a sharp croak from an unseen commander, they waded to the bateaux and tugged us off the bar. Then they towed us a few hundred yards upstream where the creek became too narrow for the boats. We tied up to two small palmettoes.

The unseen commander now appeared, wearing nothing but an important air to distinguish him from the others. He and Wog engaged in a brief exchange of grunts.

"He zay you got zalt?" Wog asked Shag.

"Plenty of salt. Also some fine jewelry and other stuff."

The commander croaked and his six followers unloaded the trade goods.

They sloshed into the marshy jungle and we trudged behind. It was raining again but we did not bother to unroll our slickers.

A short march brought us to the soggy village of King Wunka Unga. His proud name really was as long as my arm but no one ever bothered with more than the last two grunts.

The village comprised thirty-odd squat mud and straw huts arranged in a circle, in the center of which a crowd of natives were gathered around a gay umbrella such as one might see on the sands of Palm Beach.

As we neared, the crowd parted and we beheld His Majesty waiting for us in elegant style. Under the beach umbrella, he lolled regally in a white enameled barber chair. Not a strand of natural hair on the whole planet, yet here was a deluxe model barber chair. Its upholstery had rotted away and it was rusty in spots but it was a throne, no less.

After much bowing had been indulged in, old Double Grunt decided it was time to get down to business. He grunted at Wog.

Wog turned to Shag. "He zay he got zixty fine bok."

"Trot 'em out," Shag ordered.

The sixty boks were paraded, all young and strong, captives of enemy tribes. Shap opened a box of trinkets and a bag of salt, offered them for the lot.

Wunka Unga broke off a big lump of salt and nibbled it thoughtfully. He pointed at the other box and bag.

Shag haggled. Both knew that, in the end, Shag would take the sixty boks and leave all the trade goods, but trading is a ceremony on Venus. It must not be done hastily.

Half a day was spent haggling, during which I was afraid Walt was going to make trouble. He seemed content with making many protests, all of which were ignored by both sides. Finally Shag threw up his hands in a gesture of defeat and passed over all the goods. Old Wunka seemed mightily pleased.

"And not a wench in the lot," Shag grumbled.

"You want aboks?" Wog asked quickly.

"If they're young an' frisky. Let's see 'em."

Wog relayed the message. Wunka shook his head.

Shag unrolled his slicker and produced a large bottle of mellow rum. He opened it and passed it under Wunka's nose.

THE royal nostrils trembled and Wunka sighed thirstily. He trumpeted a name and a plump little abok stepped from the crowd, her large eyes growing larger with fright. Wunka pointed and another stepped out. Finally five scared little creatures trembled under Shag's predatory gaze.

A murmur of protest rose from the crowd. These young things were members of their own tribe, not captive enemies.

Shag reached out and gave one an intimate pinch. She screeched piteously and the protest from her tribe rose to a throaty chatter.

Old Wunka eyed the bottle wistfully but bowed to the wishes of his subjects. He ordered the young aboks back to the crowd.

Wog leaped in front of the old king, chattering and gesticulating wildly, but Wunka stood firm. Wog's tone grew insulting. Rage crept into the king's face. His wide mouth gathered into a pucker and he spat upon his villifier. Wog swung his cane and it landed on the royal noggin with a hollow clunk. Then hell broke loose.

Screeching natives closed in on us

like a horde of frenzied banshees, ripping at us with their deadly claws. Some were swinging clubs. It was a club that put me out.

Before I went down I saw Ty Taylor, the cross-hatched pattern of his face revised by a vicious swipe, cursing hideously and firing wildly as blood filled his one good eye. I saw young Bryant standing shoulder to shoulder with Shag, coolly blasting down the wild frogmen. Alex Robikov was felled with a club and blood geysered as a native clawed into his carotid artery. Then I went down.

CHAPTER V

Kabog Death Ritual

I WOKE feeling as any man must feel when he suffers, as we so quaintly put it, severe contusions and concussion. In the language of the layman, I was woozy, my head was bigger than a barrel, and a trip hammer inside was trying to get out.

Gradually I became aware of a hellish screeching. Painfully I opened my eyes. Blurry figures danced before me. Lights flared here and there. Now the figures became more distinct. They were natives. Some carried torches. But fire is not commonplace among the savages of Venus. Dry fuel is too scarce. I was delirious, I reasoned. I tried to put my hand to my eyes, but my hands were bound behind me. Then I realized I was in an upright position, tied to a tree or a stake, my knees sagging uselessly. Only my bonds held me up.

The eerie din continued to grate on my eardrums. When I could focus my eyes better, I saw a large pile of brush around which the natives were hopping and chanting an unholy ritual. Victory celebration, I supposed. I wondered if we had walked into a total massacre. Well, almost total. It probably would be when they finished with me.

There was a weak groan near me. I strained my head around and saw young Bryant bound to a recently driven stake, his head lolling forward. He groaned again.

"Easy, son," I whispered. "Are you hurt badly?"

"Hi, Doc," he mumbled through bloody lips. "I—I think my back's broken—maybe every bone in my body. But I guess it doesn't matter. We're done for. They l-left us."

"Who, Shag and the crew?"

"Not all of them. Some are in that pile."

I followed his eyes and saw a pile of bodies stacked like cord wood. Most of the feet were webbed but there were three pairs of boots sticking out. The largest were Robikov's.

"Captain Ogden got away with the slaves," Walt said. "Made them wade down the creek ahead of the boats, I guess. He didn't get the aboks, though." He paused a moment. "I might have gotten away, too, if I'd kept on firing at these creatures. I—I shot some. Then I just couldn't pull the trigger any more. It was like buck fever. You know, Doc, I hope those sixty boks escape before he gets them back to the ship."

The brush pile was blazing now. Four natives lifted one of their dead fellows and laid him tenderly on the pile. Old Wunka muttered some mumbojumbo and a blood-chilling chorus rose from his followers. He then came toward us, reeking of rum and reeling under the weight of spurious trade jewels. He ogled us evilly and pointed to Bryant.

Four of his boks advanced and tore Walt's jacket and shirt off with their

claws. Wunka confronted the kid and drew a knife that had been included in the trade goods. He fingered its sharp blade caressingly.

"Good God no!" I blurted. "Wait!"

He ignored me.

WITH a touch as delicate as a surgeon's, Wunka drew the blade horizontally across Walt's chest, just penetrating the skin. He stepped back and watched a line of tiny red beads form. His subjects screeched wildly. Wunka stepped to the kid again and lifted his knife.

"Wun—King!" I gasped. "Take me. I'm a worthless old . . ."

Now the knife started downward, cleanly and evenly at a right angle with the first incision. Walt's lips were compressed and his stomach muscles tightened but he made no cry. Again Wunka stepped back and his subjects cheered. Their howl was interrupted by excited croaks from the boks lifting bodies from the pile. All eyes swung toward them.

One of the Heliotrope crew whom I knew only as Lefty had squirmed out of the pile and raised himself to his hands and knees, swaying like a stuck bull. The natives backed away. They wanted no truck with spirits that came back to reclaim their bodies. Wunka was too well fortified with another kind of spirits to share their fear. He staggered over to Lefty and eyed him goofily. Then he thumped his chest bravely and kicked Lefty on his back.

Wunka went into a huddle with four of his bravest boks. After some squawking and gesticulating, the four lifted Lefty and carried him to a stake.

The strong stench of burning flesh now began to saturate the swamp air. Bryant retched terribly.

Wunka squared off before the bared chest of Lefty. Cheered on by his subjects, he repeated the surgery he had performed on Walt. Then he hunched close to his victim and I could not see him work. Finally he stepped back and waved a sheet of skin twice as big as my hand. He mumbled an incantation over it and laid it on the pyre. Again they went to work on Lefty's chest. Lefty did not flinch. He was barely alive. But as long as life remained he, literally, was being skinned alive. Walt shuddered and fainted. I envied him.

I had to quit watching. Wunka peeled assiduously and the crowd cheered lustily. When I finally looked again, the job was nearly completed. Lefty was dead.

As Wunka was about to resume his surgery on Walt, a young abok flung herself between them, shielding the kid. Then she sank to her knees in front of her king and splashed great tears at his feet while she gurgled prayerfully.

Wunka stepped back in speechless astonishment. Then he pushed the abok aside. Again she rushed between them. Wunka's cheeks puffed and he bellowed a command but the tearful little creature held her ground, trembling.

NOW a wrinkled old abok hobbled up and laid a respectful but firm hand on Wunka's arm. She jabbered assertively and emphasized her remarks with sagacious wags of her rusty head. Wunka relented sullenly.

Bryant was cut from the stake and he slumped to the ground. His little protector cradled his head in her lap and fanned him with a palmetto frond. At last he blinked hazily.

"Cassandra!" he gasped. "Wh-what happened?"

"You vree, Wawt," she sighed softly. Her large green eyes filled with admiration. She licked the blood from his chest and helped him to his feet.

"Oh-oh," I thought. "The kid's won a new lease on life but he may have won something else he doesn't want."

Someone threw a large wreath of water hyacinths around their shoulders and the crowd set up a gleeful howl. The screeching changed from a dirge to a wedding song. Old Wunka confronted them and waited for the din to subside.

Poor Walt worked his lips but no words came. He looked appealingly at me, then up at the heavy skies. His little abôk clung to him for one long, blissful minute, shivering with pure joy. Suddenly her face saddened and, with a sharp little sob, she ducked out of the wreath and fled.

CHAPTER VI

Trouble at Big Mama's

THE Kaboggans' thirst for revenge is short-lived. They like their demonstrations, but they prefer them happy. Less than twelve hours after Walt and I had fought them in a battle in which a score of their tribe was killed, Wunka Unga and his subjects slogged down to the creek to bid us farewell on our trip back to Umbawa.

Old Double Grunt had spared Walt's life because a tearful little abok had pleaded for it. He spared mine because Walt pleaded for it, although Wunka understood not a single word of Walt's eloquence. He ordered his boks to help us build a crude raft of large, light fungus boles and assigned four boks to pole us down the shallow stream. Now all of his subjects, including saucer-eyed bokkins* that seemed to be all head and no body, were at the creek to wish us well.

"Come on, Walt, hurry," I urged after many goodbyes had been said. I was frantic to get back to Umbawa before Shag blasted off for Earth. He still had enough men for a skeleton crew. "For God's sake hurry, man!"

But Walt seemed not to hear. His eyes searched the crowd of Kaboggans. He leaped from the raft, elbowed his way through the throng and found Cassandra leaning against a tree, sobbing her little heart out.

Walt put his arm around her and patted her shoulder. He fumbled at his wrist and knelt gallantly to offer his diamond studded chronometer as a parting gift, a gift worth more than all the trinkets Shag had traded to Wunka.

"Who's your Pocahontas?" I asked when we were under way. In our hurry to leave, I had failed to ask him.

"Cassandra?" She was a—er, hostess at Big Mama's for a while," he said. "I protected her from a Jovian bully once."

Of course. Where else would she have gotten that name?

Walt lapsed into a grim silence.

With two natives on the front of the raft sweeping aside the matted hyacinths and the other two poling our craft, we probably were making as good time as Shag's bateaux had made upstream but, to my jittery mind, we seemed anchored. Each moment I expected to hear the shrieking blast that would send the Heliotrope Earthward and leave us stranded. I seized a pole from one of the boks and went to work feverishly. It was no help to our progress but it eased my nerves.

Walt also took a pole. His eagerness surprised me. For one opposed to participation in the slave-running voyage, his action seemed inconsistent. However, I said nothing.

At last we reached the widening bayou and I strained my eyes to penetrate the mist. There it was! Um-

* Bokkins are Venusian babies.—Ed.

bawa squatted on the horizon like a mirage. And to one side, like a big, fat cigar in a tarnished foil wrapper, lay the Heliotrope—God Bless her—the most welcome sight I ever beheld. The boks now were poling the raft and I urged them to work faster, but they actually slowed down. They looked apprehensively toward the settlement and appealingly at Walt. Plainly they had no desire to go further but their eyes seemed to say they would go if he demanded it. Somehow, the kid had a way with Venusians.

Solemnly Walt shook hands with each of them and gave each a small gold coin which they knew they could exchange at Jo's store for merchandise. Of course they would not venture near the settlement till after the departure of the great metal fish that dives into the clouds, leaving a roaring tail of fire behind it. They popped the coins into their wide mouths and dived off the back of the raft. We never saw them again.

ON REACHING Umbawa we naturally made straight for the Heliotrope. But there was no activity about the ship, no gaping, excited natives waiting for something to happen. Walt halted abruptly, turned on his heel and marched toward Big Mama's in long, determined strides. I trotted along, somewhat puzzled.

There was an ominous silence about Big Mama's place. At least the juke box was not going and that constitutes ominous silence when space rats are around.

We met Ty Taylor coming out of the place.

"Well, blarst me soul!" Ty gasped through his bandages. "We thought you was goners, we did. 'Owd you get here?"

Walt skipped the question. "Captain Ogden in there?"

" 'E's in there right enough, mitey. Roarin' drunk an' in as foul a mood as I ever seen 'im."

Walt stalked in without removing his boots.

"Easy, son," I cautioned.

Five of the crew were playing a silent game of spit in the ocean. Shag sat unsteadily on a low stool, his right hand gripping a bottle of whisky, his left twisting the dial of a sputtering cosmophone. The aboks were conspicuously absent.

"Bless God!" Big Mama bleated. "Dere's my boy."

Walt strode straight to the captain.

Shag swayed backward and scowled, squinting for better focus. "Well, blow my tubes! Where in hell . . ."

"Captain Ogden," Welt said calmly. "I demand the immediate release of those sixty Venusians."

"You wh—?" Shag's mouth sagged open. "Wotchu say, sonny?"

Walt bit his lip and repeated the demand.

Shag rose unsteadily, bushy brows meeting in an ominous black line above his bleary eyes. He thrust his beard forward. It bristled belligerently. The poker game stopped.

"Insubordination!" he growled. "I got only one answer to insubordination —an' here it is!" He gripped his bottle, clublike. Then his lips curled in a sneering, cocky smile and he tossed the bottle aside. In almost the same motion, he threw his great hairy fist in a vicious swing.

Walt ducked neatly, slammed a thudding right to Shag's bulging middle, sent a left to the chin and a slashing right to the cheek that brought blood. One-two-three!"

Utter astonishment flashed momentarily over Shag's ugly face, changed quickly to murderous rage. He low-

ered his head and charged, fists flailing. Walt danced to one side, straightened him up with a jarring uppercut and rocked him back on his heels with a short, solid right.

"Fancy, huh?" Shag panted. "I'll tear off one of them gigolo props an' beat your fool brains out with the bloody end of it." He plunged in to make good his gory threat.

Walt back-pedaled, his rapid-fire left flicking into Shag's face monotonously. His right hand was cocked. Waiting. Waiting. Then he let it go, a cruel smash to Shag's lop-sided nose. Shag dropped to his knees. Blood spurted.

"Hallelujah!" Big Mama shouted.

SHAG stayed down a few seconds to shake the fog out of his head. Walt stepped back and waited. Then Shag lunged from his crouch. This alley type of attack caught the kid off guard. Shag sank his head into Walt's stomach and clinched. He brought his knee up viciously. A sharp groan escaped Walt's lips and blood drained from his face.

"Foul!" I cried. "Stop him. Somebody stop him."

Now they were on the floor. Shag was on top. His paws clutched at Walt's throat. Hooked thumbs dug in.

"I'll rip your goozle out," he snarled.

Somehow, Walt managed to draw one foot up into Shag's stomach. He gave a weak push but it was enough to topple Shag to one side. The infuriated captain's hand touched the discarded bottle, closed on it.

"Now!" he bellowed.

Big Mama soared out of her chair like a blimp torn from its moorings. A razor appeared in her hand as if by magic. She landed on Shag and pinned him beneath her tonnage.

"You leave dat chile 'lone, you bushy baboon!" She waved her razor in front of his face. "I cut yo' filthy heart out an' th'ow it to de catfishes. You heah me, Shag Ogden?"

"Oooooof!" he replied in a wheezy grunt.

CHAPTER VII

Bad Tidings from Home

THE cosmophone blared out as if suddenly awakened by the commotion: " . . . troversy over the use of Venusian boks in coal mines of Illinois and Indiana has split Congress wide open.

"The miners' union accuses the operators of slavery. The operators retort that the Venusians are not men and cannot be slaves under our constitution. A test case is being rushed in order to get a Supreme Court definition of their status.

"Meanwhile, the government has enacted both an embargo and immigration restrictions to prevent the entrance of other Venusians until the issue is settled.

"More than a dozen Illinois and Indiana mines, long idle because of deadlocks in strike negotiations, have been reopened with bok labor. Several of the mines have been picketed, but this action has proven futile. The boks stay below and seem to thrive in the dark, damp underground passages. Anticipating picketing, mine operators permitted the boks to take their aboks below with them. Also operators installed secret pneumatic tubes through which to send food down into the shafts. So the work goes on unhampered by pickets.

"Back in Washington, Senator Josh Wimbley, outspoken legislator from Georgia, stunned the Senate and gallery with a fiery demand for emancipation. At the height of his argument

Senator Wimbley shouted, quote: Give the damned Yankees a taste of their own medicine. Free these slaves just as the North freed our slaves a hundred and fifty years ago. Turn them loose to rob and rape and . . . yes, to vote and hold office. Unquote.

"The Atlanta Enquirer, influential Southern newspaper, said this morning in a bitter editorial. . . ."

"Lawd Goddamighty!" Big Mama yowled. "Dey gonna free dem frawgs to mix an' mingle wid our peoples? I was countin' on goin' back to Alabama one o' dese days, but if dey 'mancipates dem critters—" She wagged her head sadly. "An', Shag, you gonna git yo'sef in a mess o' trouble, snugglin' dem sixty boks down dere. You better turn 'em loose now."

Shag opened his mouth several times like a goldfish, but no words came. Big Mama eased her weight, watching him cautiously. But there was no battle left in him. He dragged himself painfully to his stool in front of the cosmophone. He sat there for hours, pulling hard on the bottle and muttering curses that would make a top sergeant's most sulphurous language seem like polite banter.

THE slavery question was the topic of the hour and the newscasters were giving it a ride.

There was talk of secession, but there were no clearly defined sectional lines such as between the North and South during the Civil War. The slave states were in the very heart of the nation. These were Illinois, Indiana, Missouri, Pennsylvania and West Virginia, with a couple of Rocky Mountain states in the "doubtful" column. But sentiment was divided even in these states. There was talk of war, but it pointed toward revolution.

A bulletin told of the wholesale lynching in West Virginia of Elmer Hoskins and ten followers. Hoskins, styling himself a Twenty-First Century John Brown, was touring the mining areas with a band of "disciples," inciting Venusians to revolt. Ironically, Hoskins was from Kansas, locale of the original John Brown's first activities in pre-Civil War days.

For the first time, it was revealed that an anti-slavery faction was helping Venusians to escape from owners and spiriting them to "free" states and even to Mexico. Borrowing a pre-Civil War term, this organization called itself the "Underground Railroad."

THE first issue of the LIBERATOR, whose avowed sole purpose was to campaign against slavery, made its appearance in Philadelphia. Its masthead resembled that of William Lloyd Garrison's famous Abolitionist paper of the same name. Publisher Thomas E. Pennock's sanctum was invaded promptly and he was dragged through the streets a la Garrison.

How long had this trouble been brewing? When we left the States there had been one or two local "incidents" over the use of bok labor, but nothing serious. The lid must have blown off suddenly—and explosively.

Shag's face was a fixed scowl, a scowl that grew darker with each lift of the bottle.

The next bulletin struck closer: "Air Secretary Baker announced that the blockade against Venusians will be tightened. Ships of the Stratosphere Guard will patrol the outer air in criss-cross lanes, weaving an impenetrable net. Forty Space Fleet destroyers have been called in from . . ."

"Gott!" Gensler exclaimed. "Drubble gets vurse yet, Captain. Maybe ve bedder turn looze dem toadhoppers, ya?"

SHAG let out a roar and staggered off his stool. "The yellow-bellied rat that believes Shag Ogden is afraid of a few news bulletins is a liar for even thinkin' it." He slammed his fist into the dial of the cosmophone. "I got the richest cargo I ever stowed and them panty-waist home guards back there in the States ain't gonna stop me."

He hefted his bottle menacingly. "An' if any of you skunks feel like crawfishin', just step up an' resign."

"You kin risk yo' fool neck if you want to, Shag Ogden," Big Mama declared, "but you ain't takin' dis boy. He kin stay here to doomsday if he want to, an' dey ain't no man livin' gonna tech him. You mout as well git dat thoo yo' bushy head." She draped a mighty arm around Walt's shoulders.

"Thanks, Big Mama," Walt said gratefully. Then he added slowly and purposefully, "But I'm going on the Heliotrope."

CHAPTER VIII

The "Lions'" Den

"ALL set?" Shag asked.

"We haven't announced our take-off and trajectory," Con Morris replied.

"An' we ain't goin' to. We're just blastin' off sudden."

"But other ships out there," Morris protested, pointing at the heavy clouds. "We might . . ."

"To hell with 'em!" Shag barked. "We'll blast and trust to luck. If we bump, we bump. All set?"

Morris hesitated. Then, "All set."

"Give 'er the gun!"

Morris slapped the rocket room telegraph all the way over. There was a screaming roar and the Heliotrope leaped out toward space. We plunged into the thick, pea-soup clouds. They seemed to press in upon us like a great fluffy blanket, trying to hold us back and smother us. Even the conditioned air inside the ship seemed oppressive.

I wished I were one of the crew, unaware that we were streaking out blindly with visibility at minus zero.

Morris turned his back upon the instrument panel and conning screen. They were meaningless now. If a crash came, it would come without warning. And we would never know it. I thanked God for that. Con plucked nervously at a hangnail. Shag held up crossed fingers and managed a grin. We waited.

Then, as a train emerges from a tunnel, we shot out into open space.

Shag was staggering drunk when we blasted off. Now, only seconds later, he was as sober as a Tibetan lama. He chuckled triumphantly. "Now let's see them damned Venusian ships try to catch Shag Ogden. I'll leave 'em so far behind they'll think they're anchored. Then all I got to do is sneak past them panty-waist cadets of the States patrol and I'm sittin' pretty."

He hummed a few notes. "I'll give this old boiler a rest for a month or so while I take Broadway apart to see what makes it tick. There's a show there I wanta see. Got a lot of cussin' in it.

"Tobacco Road?" Morris asked.

"Yeah, that's it. They say it may not run much longer."

There was no Venusian ship in pursuit. By the simple but dangerous expedient of blasting off unannounced, Shag had eluded them, if, indeed, any of them suspected he was carrying illicit cargo.

We soared on into gravity-free space, Morris calculated his bearings and pointed the Heliotrope's nose toward Earth.

LIFE on the Heliotrope became the usual humdrum routine of a space voyage. Shag kept the cosmophone shut off most of the time and there was no news from the planets. There were petty quarrels among the crew members. Everyone was touchy.

The Heliotrope was a 15-mile* ship, faster than many at that time, but that meant a three-week trip between Venus and Earth even at perigee. We were scheduled to make the flight in about twenty-four days.

On the eighth day off Venus, Shag and Con Morris were growling over a pinochle game. I was watching. Ty Taylor burst into the control room.

"Sye, Cap'n," he said excitedly. "Them blighters back in the freight bins is garspin' and puffin' somethin' 'orrible."

"Hells bells!" Shag groaned. "I don't want any of them devils croakin' on me. They're valuable. Come on, Doc."

He plunged aft with me in his wake.

The poor devils were gasping like fish in a boat.

"You'll have to get them out of here," I announced after taking one look at them and sniffing the air.

"Get 'em out?" Shag barked. "Where can I put 'em?"

"That's your problem."

"Look, couldn't you just fix 'em up some medicine?"

"I'm an M. D., not a veterinarian," I informed him. "But anyone can see they're suffocating. The heat back here from the tubes, the dry air and fumes will kill every one of them in another day or two. They've had all they can take." I was telling him what to do and I was enjoying it.

We moved them into the rocket room over the violent protests of Luis Ruiz. They were as docile as sick sheep but Shag kept them chained together for safety, and Ruiz chained them to stanchions. There was so little space they would have to take turns lying down. The temperature was not bad but they would need plenty of moisture. I told Ruiz to shoot a little steam into the air at times.

He nodded, then gave Shag one of his venomous scowls. I'd hate to have a Latin glare at me as Ruiz often glared at Shag.

Shag ignored it. "Now everything's hunkydory," he said.

But everything was not hunkydory up in the control room. A couple of crew members were craning their necks into the door as we approached. There was a commotion inside.

We reached the door just in time to see Morris pick himself off the floor and stagger toward Walt in a fighting crouch. Shag swung a roundhouse from behind that spun Walt across the room before he could put Morris down again.

"What the hell's goin' on here?" Shag demanded.

"He . . . tipped 'em . . . off," Morris panted.

"He wha-a-at?" Shag brayed.

"Your game's up, Captain Ogden," Walt said in an almost steady voice, fingering a fresh cut on his cheek. "I just sent out a message that this ship is loaded with slaves. I gave our trajectory and destination. Your game is up."

"Filthy schwein!" Gensler growled from the door. "Yust let me get mein handts on . . ." He moved toward Walt.

"Dirty squealer!" another of the crew shouted.

* The speed necessary to break away from Earth's gravity is seven miles per second. Heliotrope, a 15-mile-per-second ship, could rise from any planet in the System except Jupiter.—Ed.

"Kill the rat!" howled still another.

"Halt!" Shag commanded. There was an automatic in his fist. "He's my meat, the skunk. I'm gonna finish 'im off in my own way." His voice was calmer than I had ever heard it, ominously so. "Call Ruiz and a couple of his black gang."

HE TURNED suddenly on Morris. "Change course! Veer off in any direction till I tell you to head for Earth again. Every man to his station. Hop to it!"

"They'll get you anyway," Walt declared.

"If they do, they won't find you here, you rat."

Ruiz and two of his men appeared at the door.

"Did the fellows tell you about this stinkin' stool?" Shag blared. Ruiz nodded.

"Take 'im back to your dump an' chain 'im up with them damned boks. An' give 'em my apologies for tossin' such a louse in with 'em," Shag ordered. Then he grinned nastily. "Soon as they perk up a bit they'll take care of 'im. Then you can throw what's left of 'im, if anything, through the disposal chute with the rest of the garbage."

Even the thought of it nauseated me. I couldn't even look at the kid when Ruiz and his men stepped in to claim him. I walked back to my cubbyhole "office" for a stiff drink. I don't know how long I stayed there or how many drinks I took. They didn't have any effect on me. After a while, I decided Ruiz might need a shot, so I started back to the rocket room with a pill.

I didn't have to go to that room, and I didn't want to. I could have waited for Ruiz to come to me. But some indescribable fascination seemed to pull me there.

I took a deep breath and entered. There was Walt, sitting calmly among the boks, who seemed to have accepted him as a fellow sufferer. One of them was licking the cut on his cheek. If Walt felt any squeamishness about such ministration, he managed not to reveal it. The scene reminded me of a picture of Daniel in the lions' den.

"Walt!" I gasped. "You—you're not hurt!"

"They pity me," he smiled wryly. "They're condescending."

"Listen, son, why did you do it—send out that message?"

HE did not answer immediately. Finally he spoke slowly, weighing his words. "For two reasons — one of them is selfish. First, I pity these poor creatures. They may not be human, anthropologically speaking, but they have the same emotions we have, love and jealousy, sympathy, pride. They have some really admirable traits. I've lived with them for months and I've grown to like them, in a way.

"Now, the selfish reason. Ever read much about the slavery row that led to the Civil War? I have. Families were split over it, brothers fought brothers, husbands and wives were separated, sweethearts estranged. I know Jane is opposed to enslaving these creatures, and I wanted her to know I feel the same way. My father owns a large newspaper and he is capitalistically inclined. I have a strong feeling he is supporting slavery. So I sent the message as a means of going on record. I gave my name."

A futile gesture, I thought. Shag would never let him live to set foot on Earth again.

He looked at me as if reading my thoughts. Then, "I—I may never see her again," he said sadly. "but she'll always know how I felt."

CHAPTER IX

Race with Space Patrol

INSTEAD of raging when he found Walt unharmed among the boks, Shag roared in laughter that almost rocked the ship.

"Haw, haw!" he brayed. "As nice a set of boks as I ever seen. I believe I'll shave your head an' sell you with the lot. Nobody'd ever know the difference. Haw, haw!"

Walt was smart enough to feign great discomfort, and the pretense won at least a temporary reprieve for him. Shag returned frequently to hurl insulting jibes at him and it was clear that he did not intend to deprive himself of this sport until the voyage was nearly over.

Then one day as we neared the moon's orbit a news report snapped Shag to attention. A mob of Illinois miners had slain forty Venusians, the announcer said. A hundred of the miners were arrested for destroying private property but were held without bond pending determination of the Venusians' legal status. This placed the miners in a predicament. Some of the men held were high officials in the union. If the courts decided the Venusians were men, these officials, along with many miners, would face murder charges. On the other hand, if the Venusians were found to be beasts, the slavery issue would have to be dropped and widespread unemployment would follow increased use of bok labor. Undoubtedly, bok labor would spread to other industries.

Prominent anthropologists, biologists and psychologists were called before a Congressional committee investigating the festering situation but, as usual, the experts could not agree. Classification of the Venusians remained a perplexing puzzle.

Meanwhile, the announcer said, as public feeling grew more intense, Air Secretary Baker ordered a further tightening of the Venusian blockade.

"Oh, yeah?" Shag growled. "We oughta be past the outer patrol by now, eh Con? Maybe that damned squealer's message didn't get through."

Before Morris could answer, the inter-ship loudspeaker began sputtering. Then a voice came clearly. "Halt, Heliotrope. United States Patrol Ship Two-Eleven commanding Heliotrope to halt. Halt before we . . ."

"In a pig's eye!" Shag roared. "Open 'er up, Con. We'll show 'em some maneuverin' that'll make their eyes bug."

Con flashed the full-speed signal to the rocket room and sent the ship into a tight loop.

"Level 'er off at a hundred and eighty degrees, then kick 'er around in a U-turn to port. Then do something else, anything, but do it so fast it'll make 'em dizzy to watch us," Shag ordered. He was hunched over the conning screen. Perspiration popped out on his forehead.

"See them?" Morris asked.

"Nope. And they may not see us. Maybe they're bluffin'."

"Neat little display of astrobatics, Ogden," said the loudspeaker. "Neat but futile. We'll get you."

Shag's eyes were glued to a dial. "Like hell they will," he muttered. "I've got their position now. They're not even close. Level off again, Con, and streak straight ahead for a few thousand miles."

"Patrol Ships Two-Oh-Four and Two-Oh-Nine," the loudspeaker blared. "Two-Eleven calling Two-Oh-Four and Two-Oh-Nine." The voice gave the Heliotrope's position and direction. Morris veered off at a right angle without instructions. "Patrol Ships Two-

Oh-Nine and Two-Oh-Six. . . ."

"Damn 'em to hell!" Shag howled. "Have they got the whole Space Fleet after us? They may catch us, but—" An ugly light crept into his eyes. "Signal Ruiz to come in here."

HE LAPSED into an ugly silence. Morris used his own judgment in changing course again. Ruiz came into the room.

"Looey," Shag began. "How many of them boks can you cram into the incinerator at one time?"

"Buenos Dios!" Ruiz gasped. "You don't mean . . ."

"Answer my question, you chicken-livered spig!" Shag snapped. "I ain't gonna lose my cargo unless I have to, but I'll be damned if I'll be caught with 'em aboard."

Ruiz eyed Shag darkly, then shrugged. "Maybe four, maybe five at a time."

"Make it five. How long will it take to cremate five?"

Ruiz looked as if he wanted to be sick. "Three-four minutes, maybe, if I step up the heat."

"Tie 'em up in bunches of five," Shag ordered. "Conk 'em with a wrench if you have to. Be ready to get rid of 'em the minute I give you the word. Tie that stinkin' squealer up with 'em. If them damned patrollers do catch me, they won't find any evidence on board, or anywhere else. There won't be any, except a few ashes driftin' out there in space. See, Looey?"

I caught Ruiz' eye and shook my head, giving my arm a significant pinch and thumbing an imaginary needle.

"Well?" Shag barked.

Ruiz shrugged. "As you say, Capitan."

The Heliotrope looped and twisted and spiraled like a meteor gone beserk. Shag gripped a stanchion with one hand and a bottle with the other, yelling orders between gulps. Now a patrol ship would come into view in the conning screen, then we would lose it. But the voice from Two-Eleven continued with maddening coolness. "Two-Oh-One and Two-Oh-Six converge. Two-Oh-Four dead ahead at full speed. Some fun, eh, Ogden? Two-Oh-Three and Two-Oh-Eight.

"Shuddup!" Shag bellowed, hurling his bottle at the loudspeaker and missing.

"Steady, fella," Morris grunted.

"Steady?" Shag howled. "Them dirty sons are closin' in on us. There's a million of 'em. I could shake one or two so quick they'd think they was seein' things. But—signal Ruiz to start unloadin'. Where the hell you goin', Sawbones?"

"I—I was just going back to see the kid before . . ."

"Well, just don't!" he snapped. "Stay right here."

SILENTLY I watched the chronometer with sickening horror while the Heliotrope continued its wild flight. Five minutes, and five fewer Venusians. Ten minutes. Shag was spouting a stream of acrid curses. He never paused, never repeated. Gradually the patol ships were drawing nearer. Morris put the Heliotrope through every trick known in astrobatics, invented some new ones, but the pursuers would not be shaken off.

"They're closing in," Morris muttered as he put the ship into another dizzy roll. "They're within range."

Shag flung a wild glance at the chronometer. "Keep it up," he ordered. "Another ten minutes and we'll be rid of the evidence. Then they can catch us and be damned."

Ten more minutes. Walt probably would be with that last group of

doomed boks, I reasoned. There was still time to save him if—if I only knew some way to do it.

Shag seemed to know what I was thinking. "Keep your shirt on, Sawbones," he said. "It'll all be over in a few minutes."

There was an explosion nearby and the Heliotrope shuddered from nose to stern. "Halt, Heliotrope!" came the voice over the loudspeaker. "Halt, or we'll blast you out of the sky."

"Keep it up a few minutes longer, Con," Shag panted. Then to me, "Hop back an' see if Ruiz is through unloadin'. Wait! I'll go, myself." Nevertheless, I followed him.

We reached the rocket room just in time to see the incinerator door close on a bunch of webbed feet. Ruiz shoved a bolt home and opened the jets.

Shag looked around the room. "That the last of 'em?"

"That was the last," Ruiz said. He avoided my eyes.

Shag released a deep sigh and rushed back to the control room. A moment later the Heliotrope's screaming rockets were silent. We drifted smoothly through space.

CHAPTER X

Latin Laughs Last

SHAG'S face was an ugly scowl as Two-Eleven's airlock meshed with ours and nattily uniformed patrolmen swarmed into the Heliotrope.

"Where's Captain Ogden?" demanded the squadron commander. "Oh, there you are. Where are those Venusians?"

"Me no spik Englis," Shag leered. "An' besides, what's the idea of haltin' a law-abidin' ship out here in high space? I wasn't doin' nothin' but takin' a little joy ride."

"Where are those Venusians?" the officer repeated.

"I don't know what the hell you're talkin' about."

"Search the ship, men," the commander ordered.

I wanted to tell him it would be a futile search, wanted to tell everything, but a murderous look from Shag stopped me.

Shag chuckled gloatingly as each pair of searchers returned to report to their puzzled officer.

"They've got to be somewhere," the officer insisted. "Where is Walton Bryant, the man who sent the message?"

"Ain't no such animal," Shag declared. "One of my crew was playin' a prank. Used a phoney name. If I ever find out who it was, I'll kick his teeth out."

"You're a liar!" the officer gritted. "There were Venusians aboard this ship. And, if they aren't here now—" His voice lowered to a growl. "You dirty killer!"

"Prove it," Shag taunted.

The officer eyed him loathingly. "You win," he snapped. "But we'll get you, Ogden. You mark my words, we'll . . ."

"Maybe you wish to search my rocket room again, eh?"

Ruiz stood in the door. His question was addressed to the officer, but he glared at Shag with hatred in his eyes.

"Damn you!" Shag blurted, snatching out his automatic. "If you've double-crossed me, I'll. . ."

Patrolman seized and disarmed him.

"I enjoy seeing you squirm, Capitan," Ruiz hissed. "But you will squirm more before this is over."

We all followed him to the rocket room. There was no evidence of slave-

running there, none of the chains or ropes, nothing. Ruiz seemed to enjoy the puzzled look on our faces. He winked at one of his black gang and asked for a wrench with the air of a magician calling for a prop.

"Be patient," he smiled. Then he crawled atop a water tank and unbolted its cover. He slid back the cover. "There!"

Standing in water over their heads were the missing boks, packed in the tank like asparagus tips in a can. Ruiz pulled one out by the scruff of the neck. The bok's eyes blinked with fright and bewilderment but he seemed much refreshed by the baptism.

Shag sputtered in a choking rage.

"Maybe the Capitan needs a drink of water," Ruiz grinned. He drew a cupful from the tank and offered it.

"B—but I s-saw you—" I stammered at Ruiz.

"They were already dead," Ruiz explained. "Four of them. They died of fright during our mad joy ride. I tied them up and waited for the Capitan. I knew he would come. And when he came—" He finished with a shrug.

"Where's Walt?" I shouted.

"Senor Bryant?" Ruiz asked blandly.

"Well done, Ruiz," chuckled one of the black gang. "But I can't carry on the act any longer." It was Walt, garbed in the asbestos coveralls and hood of a black ganger.

THAT'S how I happened to know Walton Bryant, who, unless I miss my guess, has made a name for himself in history.

His plea to Congress in behalf of the Venusians already is being called a classic. His plan for the government to buy all of the Venusian slaves at original purchase price and return them to their native planet, I believe, was the only thing that averted revolution in this country.

Sure, others thought of it, but they didn't sell the idea. He did. I said once the boy had a way with Venusians. He has a way with men, too, and with a certain little girl in Georgia.

Shag? He's where he belongs. The last I heard of him, the government was digging up additional charges against him—enough to keep him in storage till his beard is snowy white, if they let him wear a beard.

THE OBSERVATORY

(Continued from page 8)

NOW that sugar is something we can't get much of, science is finding new uses for it. Now they find you can waterproof material with sugar. Sugar, combined with acetic acid, is dissolved and applied to cloth. When ironed, the material becomes glossy and waterproof.

ONE of our pet peeves is going fishing with the the bird who sits tensely silent in the boat and shushes you with an angry glare when you whisper. For his information, fish can't hear. They have no organs of hearing, and the most they can do is feel vibrations in the water caused by sounds. Besides, we were singing Annie Laurie very lustily when we caught the biggest bass of our career.

OUR latest Tibetan newsflash tells us an amazing fact. In Tibet the news is read aloud because, first, few Tibetans can read, and second, only fifty copies of their one newspaper are printed at the time. Thin, gray-haired, European; Walter Asboe does the printing on a ramshackle hand press. His first and only run is speeded to lamas (priests) who summon the people of neighboring villages to listen to the news. The papers are then forwarded to another group of lamas; and by the time they have traveled to the far frontiers of Tibet, the news may be from six months to two years old!

IF YOU'VE got ulcers, call in a healthy friend—he'll digest 'em for you! Doctors have found that gastric juices, from persons in A-1 health, injected into the stomachs of ulcer sufferers is a successful cure for the condition. Patients treated to a daily injection for about two weeks, have been cured.

HERE'S one the boys in the infantry aren't going to like so well! Boys, do you know where the term "infantry" comes from? Well, it's been called that because in military parlance, it originally meant young recruits under age. First used by the Spaniards in their wars against the Moors, the infantry is the oldest of the "arms" into which armies are divided. So it's kid stuff, lads, kid stuff!

THE war makes people think of the darnedest things! Somebody got to thinking of what good tattooing would be for the army, and he figured out a new one. It seems that a certain phosphor compound can be used much the same as a tattoo. The idea is to use it to identify soldiers killed in battle, as a means of eliminating that bothersome metal disk they wear around their necks. Phosphor compounds are invisible in ordinary light, but glow brilliantly under the influence of x-rays. What gets us is who's going to cart the x-ray machine around identifying the victims? We might suggest a better use for the stuff. A means of "branding" habitual criminals, without that "scarlet letter" stigma; a method of marking patients after an operation to give the next physician a case history.

IT SEEMS the statisticians could have prepared us against Pearl Harbor. They tell us that Japan has a reproduction rate of sufficient speed to double the population each succeeding generation. Well, we might admit that that provides them with a problem—but we'll tell the world Pearl Harbor was the wrong way to solve it. Or maybe it was at that—considering what we intend to do to 'em as soon as we get a few things ready!

THERE weren't any rich men in Sweden in 1659. Or at least, if there were, they never carried much money around with them. Because in 1659 the governmental treasury of Sweden issued a coin which is without doubt the largest ever minted. It weighed 31 pounds, was made of copper, and had a surface of two square feet! And the value was a little over $5.00. And amazingly, that much pure copper sells for almost exactly the same price today!

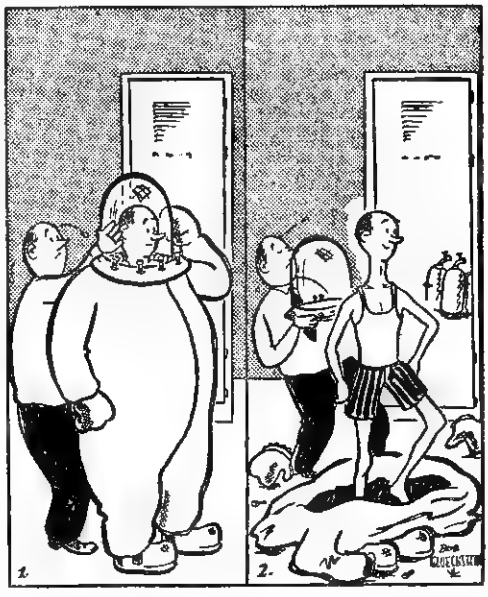
SPEAKING of copper, the Egyptians knew a bit about it, too. And it seems making mummies last wasn't the only handiwork of theirs that could put up a battle with time. In the ancient pyramid of Cheops, Egyptologists recently found a copper pipe which could still hold water—and that's making mighty pure copper!

A BRIGHT fellow told us the other day that he'd uncovered a scientific fact that would help us to save the rubber on our car. He said castor oil was the only oil which wouldn't rot rubber. Now, that's true, but we wouldn't advise you to put castor oil in your car, *anywhere*. In the brakes, the motor, or even on the tires, if you are hoping that'll preserve 'em—because even Wrigley hasn't got a gum as good as castor oil will make in a motor!

IT'S a broad jump from auto tires, which are worth their weight in gold, to goldfish, but here we go. Twenty million goldfish are produced annually in the United States. They are more popular as pets than cats. And the newly hatched fish are fed powdered egg yolk. Bet you didn't know that. They are so tiny they can play tag in a thimble.

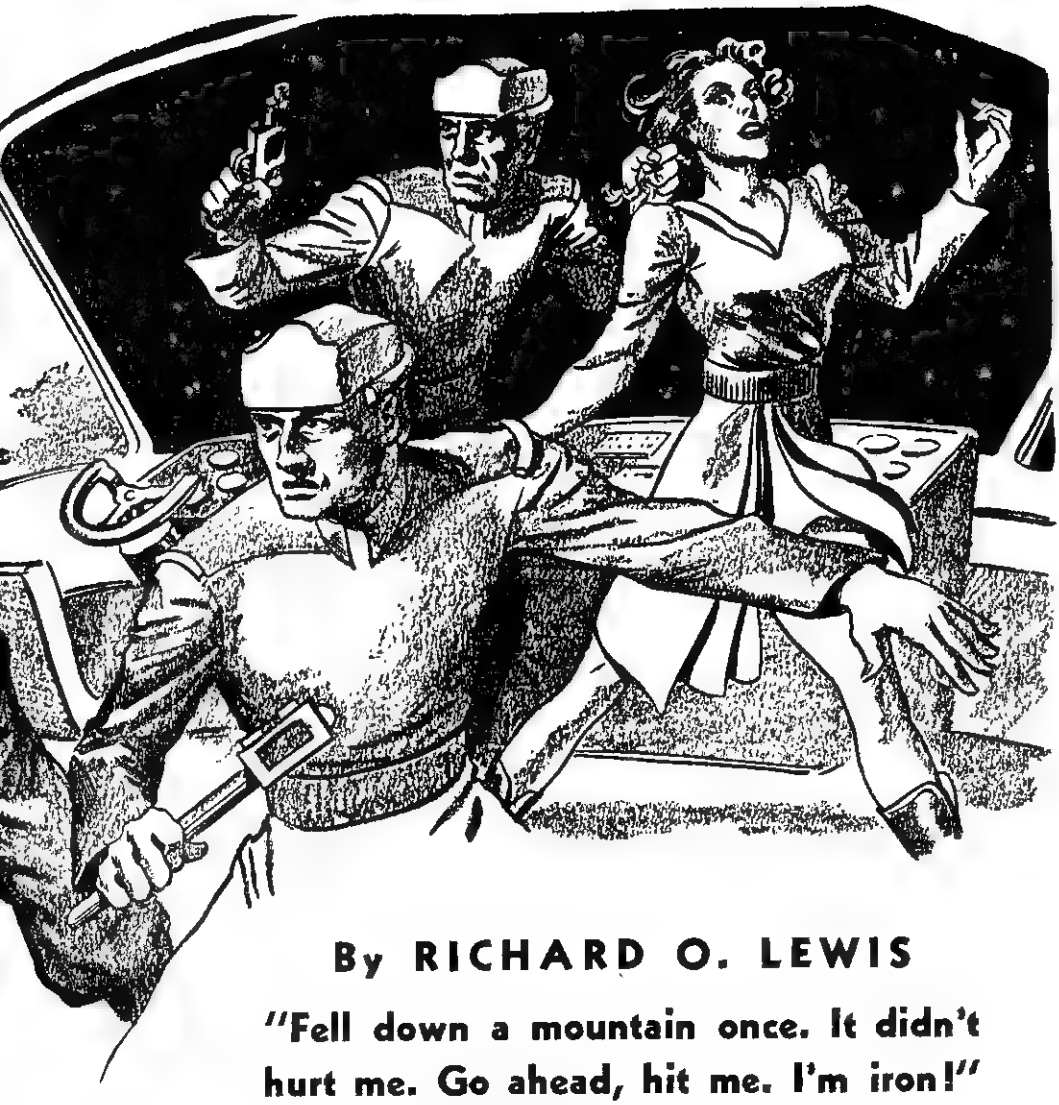
WE ALWAYS wondered why green apples made us sick. Now a scientist comes along and tells us a story that's about as amazing as any we've heard about apples and there have been a lot of them! It seems Nature has declared that the proper time to eat an apple is when it is red ripe and ready to have its seeds dispersed for further reproduction. So in order to insure this, she has played a dirty trick on the apple-snatcher who has gone to all the trouble to tear his pants on the fence to get one. She prevents us from eating the apples while still going through the sexual process of seed-ripening by generating a cyanide type poison which causes our bellyache. Upon full maturity, the apple is ready to have its vital seeds dispersed, and Nature withdraws the poison to furnish man with a delicious food which he can eat to his heart's delight—that is if he doesn't make a pig of himself!

Which ought to be enough of amazing bits of observation for another month! *Rap.*



MOON MADNESS

Bret's strength was amazing. He tossed men around like feathers



By RICHARD O. LEWIS

"Fell down a mountain once. It didn't hurt me. Go ahead, hit me. I'm iron!" What did Big Bill's strange words mean?

"GO ahead," said Fidge Kenyon. "Hit him."

She was a straight young girl almost as tall as Doc Bret, with sparkling blue eyes that are usually common only to very small children and to young women of great guile.

"Sure," said big Bill Carlon. "Go ahead an' hit me." He was blocking the aisle between the cafe booths and the row of tables, his big chin thrust out invitingly. The dark pupils of his eyes were slightly dilated and a bit out of focus. "Hit me hard. Gotta prove something to you!"

"Now, listen," Doc Bret said calmly, "I've got work to do. I haven't time to play games. Two hundred men, women and children are waiting for me at the hospital with bad cases of the *bends*. I shouldn't even have taken the time to drop in here with this pest," he indicated Fidge, "for a cup of coffee. Those people need attention."

"Tha's what I'm tryin' t' tell you," said Bill. "Was on the moon two weeks. Busted helmet. No bends. Found something on the moon. . . ." His words were running together and he was swaying slightly on his feet. "You gotta hit me so's I can prove it!"

"Go ahead," encouraged Fidge. There was always action when Fidge was around. If the action didn't start on its own accord, she usually found means of starting it. "Sock him one."

Doc Bret's temper was short. Four days ago, a spaceship of the Kenyon Line had come limping into port with a hole in her side. Most of the air pressure had escaped from the ship, leaving the passengers and crew suffering from the resultant nitrogen bubbles that had accumulated in their bodies.

And that wasn't the first time a thing like that had happened. No, it was the third time within the last two months—too often for it to be merely accidental. And Doc Bret, as medico for the Kenyon Line, had been working day and night. . . .

"Damn it!" he exploded. "Get out of my way." He balled his right fist at the same time and planted it squarely upon the point of Bill's chin. The blow should have at least set Bill back on his heels. But it didn't!

Bill didn't budge. "See?" he said. "See? Gotta jaw of iron. Got it on the moon." A crazy grin was spreading over his face, and the pupils of his eyes had gotten suddenly larger. "Nothin' hurts ol' Bill. Fell down a mountain once. . . ."

Two men, the only other occupants of the room besides the cafe owner, moved closer to the group. Doc recognized the tall dark one as a man named Bersk. He had been hanging around Port City for the past six months with no apparent business. His companion was small and ratty. Bill had been sitting at the bar with them not over ten minutes ago—just before he had spied Doc. Bill was probably drunk.

"Let's get out of here." Doc took Fidge by the arm and tried to push past Bill.

Bill shoved him back. The silly grin had left and a strange expression was twisting his heavy features grotesquely. "Gotta hit me again, Doc!" he blurted. "You don' un'erstan'. Found something onna moon. . . ."

Doc Bret's patience snapped. He was needed at the hospital! And here he was being held up by a drunk. . . .

He took a step backwards, balled his fist and swung in earnest. The blow landed with a smack that scared an echo out of the far wall.

"Atta boy!" shouted Fidge.

After that, Doc stood there nursing his knuckles in bewilderment, his gray eyes puzzled. His fist felt as if it had just finished hitting an anvil. There wasn't even a red mark on Bill's chin.

The big man was still babbling. "Stuff on the moon. Stuff'll make the ol' body stan' anything! Lost two weeks. No helmet. No bends."

His ham-like fist reached out to clutch at the edge of the booth for support. The strength seemed to have gone from his legs. He was wabbling. *"Stuff t' lick the bends! Worth millions. . . ."*

There was a crash as his big hand ripped out the partition between the booths and pulled it down over him as he fell to the floor.

SOMETHING clicked in Doc Bret's mind. Two weeks on the moon! A broken helmet! No bends! And now Bill was unconscious. . . .

"Stand back," he said as Bersk and his partner hurried toward the fallen

man's side. "This man is ill."

"Drunk," said Bersk. "We'll take care of him."

"We're . . . we're his friends," said the ratty little man. "And we saw you knock him down." His hand was in his pocket on something that bulged there.

"I happen to be a friend of his, too." Doc bent over Bill who was rolling his head from side to side, still mumbling something about the miracle that had occurred upon the moon. "This man needs medical attention."

Fidge Kenyon's shout of warning caused Doc to glance up just in time to catch sight of the black jack in the little man's hand. The weapon was coming down in a sweeping arc toward his head.

Doc acted instinctively. His left arm warded off the blow and, at the same time, his right fist came up from near the floor to smack squarely into the ratty face, lifting the man from the floor and sending him sprawling back into Bersk's knees.

A half hour later—thanks to the help of the cafe owner—the unconscious Bill Carlon was sprawled out upon a couch in Doc's apartment and Doc was preparing a hypodermic.

"Do you always bring drunks home with you at this time of night?" Fidge wanted to know. She was putting a cold cloth to Bill's head.

Doc ignored the question and asked one of his own: "Did you ever hear of *Moon Madness?*"

She shook her head. "No, but I've heard of people being *moon-struck.*"

"No similarity," said Doc. "Bill has a bad case of Moon Madness. There is a narrow band of atmosphere about the moon. This atmosphere is composed of a heavy gas with a nitrogenous base in combination with oxygen that has been liberated from water crystallization by the raw ultra-violet rays. When taken into the lungs, the oxygen disassociates itself from the combination to sustain life, but the other gases also enter the blood stream and create havoc with the brain cells—disrupts their nervous impulses. The victim is likely to be erratic—high speed brain metabolism one minute and exhaustion the next."

"And the outcome?" asked Fidge.

Doc shrugged his shoulders. "Sometimes they get over it."

He placed the hypodermic needle against Bill's arm, gave the customary short and quick shove, then swore beneath his breath as the needle broke off squarely. He tried again a moment later, and broke the second needle.

Doc got to his feet, bewildered. Then something clicked in his brain. Suddenly, all the scattered pieces of thought leaped together into a unified whole. *"That's it!"*

"What's it?" Fidge wanted to know.

Doc's gray eyes were glowing with excitement. "Bill was on the moon two weeks with a broken helmet. That caused him to get Moon Madness. But he didn't get the bends! He didn't get the bends *because he discovered something—some chemical, perhaps—that made his body as tough as steel!"*

"I don't get it," said Fidge.

"That's what he was trying to tell me," Doc went on, as if thinking aloud, "but the Moon Madness had him all mixed up. He was trying to tell me of his discovery. That's why he wanted me to hit him. He was trying to *prove* something."

He looked into Fidge's wide blue eyes. "You have probably suspected that someone is trying to sabotage the Kenyon Line, ruin your father. That's why those mysterious holes have been appearing in his spaceships. I am not a detective. I can't prevent the holes

from appearing, but I *can* save the lives of the people when these 'accidents' happen. *I can save hundreds of lives if I can find out what it was Bill discovered on the moon!"*

"Then why don't you ask him?" The question was perfectly logical to Fidge.

Bill was showing signs of life on the couch. His eyes were rolling and his arms were moving.

Doc took him by the shoulder and shook him. "Bill," he said urgently, "tell me. What was it you found on the moon? What did you. . . ."

BILL'S arms began flailing about as if a hidden dynamo had started up somewhere within him. A huge fist came down upon an end-table near the couch, and that bit of furniture resolved into kindling wood as if it had been struck by a sledge.

Then Bill was on his feet. His lips were drawn back from his teeth, and his eyes were completely out of focus. "Doc!" he shouted. "Gotta find Doc!"

He bumped into a heavy library table. It seemed to be in his way. He clutched it up in his hands and flung it across the room. "Gotta get outta here! Gotta find Doc! Gotta tell him . . ." Finding one wall of the room, he began feeling his way along it for an opening, tearing up the furniture as he went.

At one corner of the room, he stopped. The life seemed to be going out of him. One hand went to his head, and his feet began to get tangled up. Then his legs went out from under him and he came to the floor with a thud. Fidge and Doc dragged him back to the couch again.

"Well, I guess that wasn't such a good idea after all," said Fidge. She seemed discouraged.

Doc looked about the room at the shambles that had once been expensive furniture. "No," he admitted, "it wasn't so good. But I suppose you'll think up a better one any minute now."

Fidge's long lashes opened and closed rapidly over her eyes for the space of two short seconds as she leaned back thoughtfully against the up-ended library table. Then she came up straight and bright, as if something wonderful had happened among her mental processes. "Why, of course," she cried. "All we have to do is to go to the moon and. . . ."

"Sure," Doc broke in. "All we have to do is to go to the moon. . . ." He stopped short, thoughtfully. "Say!" he said finally. "Maybe you *have* something there! Bill can't *tell* me, but if he were on the moon he might be able to *show* me in some way what he found!"

"Good!" said Fidge, as bright as a new nickel. "Then we're going?"

He took her by both shoulders, turned her around and headed her for the door. "Find your father and ask him to have a ship ready for me within the hour." He opened the door and pushed her through into the hall. "Then go home and get into bed and take a nice long sleep. I may need some more good ideas when I get back."

"But I'm going with you! I'm . . ."

"That's what *you* think," said Doc. "Now run along like a good little girl and do as I told you." He closed the door.

AN HOUR and ten minutes later, Doc, was sitting alone at the controls of the small ship. Laboratory equipment had been packed aboard, Bill had been strapped down to a berth in one of the small staterooms and Doc had looked carefully in the other staterooms just to make sure that Fidge had

not stowed away.

Up above the earth's atmosphere, the moon was like a bright silver coin lying upon black felt among lesser pin points of light. Doc checked the course for the second time, then turned the ship over to the automatic controls.

He sat there a while longer, checking the instruments. Then his eyes lighted upon the viso-screen before him, and his jaws clamped suddenly shut. A ship was following him. The rocket blasts were plainly visible in the dark shadow of the earth's umbra.

"Damn'!" he said between clinched teeth. "Fidge! The ever-present Fidge! If she *does* arrive safely on the moon, I'll . . . I'll wring her neck!"

After that, he went to bed in one of the berths without bothering to remove his clothing. There seemed little else to do.

Doc Bret awakened hours later to a noise like that of a spaceship being torn apart. He leaped from the berth, fully awake. The noise was coming from the opposite side of the ship. He rushed out into the hall and flung open the door of the stateroom across from his own.

Bill was there. He had torn the straps in two that had held him in the berth, he had ripped the berth from the wall and he was now busily engaged in making a shambles out of the bedding and the wood and steel frame.

Doc grabbed him by the shoulder. "Listen, Wild Man," he shouted, "you're aboard ship now and if you tear it apart you might have a long way to fall."

Bill stopped his work. For a moment a semblance of reason seemed to return to him. "Hello, Doc," he said simply. "I'm hungry. I'd like to have some of them ham and eggs."

Ham and eggs!

And then Doc got it. His nose picked up the odor that was permeating the ship—the odor of old-fashioned ham and eggs.

He dashed out of the room and up the hall to the small galley. He stopped at the door of the galley, too bewildered to speak.

Fidge turned from the tiny electric stove. She looked quite housewifey in her print apron. "Good morning," she said airily. "How do you want 'em? Up or over?"

Doc exploded with something that sounded like, "How'n'll did *you* get here?"

Fidge's eyes were round with innocence. "I brought some provisions for the kitchen last night before you took off," she explained, "and . . . well, I guess I must have fallen asleep here and . . ."

"Naturally!" said Doc. "Then you weren't in that other ship that was following us!"

"Silly, of course not. How could I be when I was here all the time?" She turned back to her skillet. "Anyway, that other ship passed us three hours ago—just before we landed on the moon."

"Landed on the moon!" Doc noticed for the first time that the rumble of the rockets had ceased. Just outside a porthole a jagged crag was rearing its rocky head into the sky.

"Of course," said Fidge. "After you went to sleep, I took over the controls and got some speed out of the old tub."

Doc hurried to the control room and looked out. Fidge had landed the ship in a small valley. On one side was a fantastic range of yellow stone. The ragged edge of an immense crater cast a shadow almost to the ship on the other side. The sun was a blazing orb high in the sky. But there was no sign of another spaceship.

He was worried. Fidge had not been in that other ship. That meant that

someone had been following them. But, why? Had Bill talked too much that night in the cafe? Was someone else after the chemical?

DOC shrugged his shoulders. What difference did it make who got the chemical so long as humanity benefited by it? The best thing to do was to forget the other ship, get the chemical as soon as possible and return to Port City. After all there were two hundred people in the hospital. . . .

Back in the galley, Bill was shoving ham and eggs into his mouth with both hands, taking time off now and again to wash them down with black coffee. The coffee was scalding hot. But Bill didn't seem to mind.

"Gotta . . . gotta . . . take you to the moon," he said between mouthfuls as Doc appeared at the door. "Take you to the m o o n . . . and show you . . ."

"We're on the moon now," said Doc. 'All you have to do is to show me . . ."

"Gotta get . . . on the moon. . . ." Bill was getting all mixed up again. "Fell down a mountain . . . once . . ." He staggered to his feet. His eyes were all out of focus as he gazed about the galley. "Gotta get . . . out-a here. . . ."

"Wait!" Doc was too late. Bill's big hands had clutched the edge of the table. There came the sound of splintering wood, and the next instant Bill and the table and the ham and eggs and the broken dishes were piled up in a heap upon the floor.

Doc bent over him. "Exhausted again." He dragged the man back to one of the staterooms and strapped him into a berth. "When you wake up next time," he said, "I hope you know what's going on."

A few minutes later, he was back in the galley. What once had been breakfast was still lying upon the floor, but Fidge had gone. He caught sight of her then. Through the porthole. She was wearing a heavy space suit and had just stepped from the locks of the ship, headed for the rim of the crater.

Doc permitted a groan to escape his tight lips, then hurried to find a suit for himself. "All I need now to make this trip a complete nightmare," he muttered as he struggled into the cumbersome garment, "is to have her wander off somewhere and get lost!"

He stepped from the second of the locks to the rocky crust of the moon and stood there for a moment blinking his eyes as the full glare of the sun struck him. At first, he couldn't see Fidge; but when he finally did locate her, a gasp escaped his lips.

She was some distance away and approximately forty feet in the air, wrong side up and plummeting down head foremost toward a jumble of rock. Straining every muscle in his body, he leaped toward the spot and caught her in his arms before she crashed.

"That's the best possible way to break a space helmet!" he told her as he put her right side up on the rocks beside him. "Now get your gravs adjusted properly and we'll get back to the ship."

"That's what I was trying to do," she said. "Adjust my gravs. But I must have turned the jigger the wrong way. The first thing I knew, I was up in the air; and the next thing I knew, I . . . I was in your arms." She seemed to be enjoying the whole situation.

"And the next thing you know," he said, adjusting the gravs for her, "you're going to be back in the ship." He took her by the arm.

"But, wait!" She h u n g back. "There's no need to go back to the ship. Bill is probably still asleep. Even if he were awake you might not be able to calm him down enough to find out

where the chemical is. Why not look for it yourself? Maybe you're standing on it right now."

While Doc was thinking that one over, Fidge's eyes were looking speculatively up at the high rim of the crater. "And while you're looking," she said, "I think I'll take a little walk." She started away.

"Now look here. . . ." Doc was about to stop her, but thought better of it. He shrugged his shoulders. Well, why not? Her gravs were adjusted, and if she didn't wander off too far . . .

IRREGULAR fissures scarred the rock at Doc's feet. Colorless, heavy gases were issuing from the cracks, forming a false atmosphere that soon went out of combination and dissipated itself. About the fissures were various types of crystallization. Doc picked up some of the forms in his hands and looked at them. Nearly all of them were familiar to him. Moonologists had long ago cataloged them. What he needed to find was something different. . . .

"Look!" It was Fidge. She was standing on the topmost rim of the crater, gesticulating wildly. There was a world of excitement in her word and actions.

Doc turned his gravs toward the negative, and was at her side in three long, soaring leaps. "Where?" he asked. "What is it?"

She made a sweeping gesture with her hand that included the entire view ahead. Doc saw nothing except the crater. It was perhaps two miles across with almost perpendicular sides that seemed to extend down into the very heart of the moon. Deep shadow upon the opposite side cut the gigantic spectacle into a bas-relief of light and dark.

"It's lovely!" she said. "It's the most *beautiful* sight I've ever . . ."

Doc could have bit a chunk out of his space suit. "Now look," he said as calmly as he could. "We didn't come here to view the wonders of the moon. We came here to find . . ."

And then his heart came to a complete stop. The blood froze in his veins. From behind him came the sudden roaring sound of rockets blasting into action. *The ship!*

He wheeled about. The ship he and Fidge had just left was no longer in the valley. It was gyrating drunkenly through the sky, its rockets spewing and roaring. It was like a wild thing driven by a madman. Twice it nearly crashed, then it came thundering directly toward the rim of the crater.

"Look out!" Doc shoved Fidge out of the way and ducked. He could feel the blast of the rockets as the possessed craft split the air above him and did a leap-frog over the rocky edge.

Then it was streaking down toward the very heart of the crater, and Doc closed his eyes to shut out the inevitable sight. Three seconds later, still hearing the thunder of the rockets, he opened his eyes again to see the ship come spiralling upward from the depths like a tormented pin-wheel out of hades.

Once more, it narrowly missed the rim of the crater, and Doc caught sight of the addle-pated Bill as the ship roared over him. Bill was smashing wildly at the controls with both fists, trying to smash into senselessness the tremendous power he had unleashed.

Doc leaned up against a jagged wall of rock and watched the ship. It had leveled out upon a straight course. He watched it until it dropped from sight beyond a distant range of mountains. After that, he sank down weakly to a sitting position upon the rim of the crater. He sat there looking blankly at Fidge who had just picked herself up from where he had pushed her out of

the path of the crazy ship.

For the first time in the two years he had known her, she didn't seem to be enjoying life. She came slowly over to him and sat down beside him. "I'm . . . I'm sorry," she said. Tiny lines creased her forehead, and her eyes were serious. She was blaming herself for having caused him to leave the ship.

HE PLACED a steel hand upon the arm of her suit. Small comfort in that! But, presently, she brightened. "Father will send a rescue ship for us in a few days," she said.

"Sure." But Doc didn't have the strength of his own convictions. Kenyon wouldn't send a ship within a few days. Kenyon didn't know how long they had intended to stay upon the moon. Kenyon might not send a rescue ship within a month. And, by that time. . . .

Doc felt a cold chill go through his body. The space suits were equipped with two oxygen tanks, each holding a four-day supply. After eight days, there would be no more oxygen! They would tear off their helmets then in desperation, gasp at the meager atmosphere of the moon like dying fish. Moon madness would creep upon them. But perhaps the moon madness would be a blessing—they would not feel the pain of the bends and starvation. . . .

But Bill had found something that had saved him from the bends!

Doc clutched that slender ray of hope to him eagerly. "We've got to find that chemical!" he told Fidge. He knew it would be better for her—better for both of them—if they were busy working at something. It would save their sanity.

Hours later he was still sorting the various forms of stone and crystal that Fidge found for him. Worthless! All of it! Innate and broken pieces of rock that a small boy might gather for use in a sling-shot!

If only Bill had been able to tell him! If he had left a clue. . . .

Doc went methodically over Bill's pratings as nearly as he could remember them. "Fell down a mountain once. . . ." Maybe that was it. Maybe that was the clue. Perhaps Bill's steel suit had dug up rocks from the side of the mountain as he fell, rocks that had been untouched by the raw ultra-violet of the glaring sun.

He found a spot on the shaded side of the crater's rim, a spot where the light of the sun never touched. In the deep shadow, there was a fibrous growth covering the rocks. He scraped the stuff away and dug with his steel gloves. Then he sat some of the pieces of freshly unearthed stone into the direct rays of the sun and watched for some change. There was none. . . .

Time on the moon seemed to stand still. There was no sun rise or sun set, only the slow lengthening of shadows. . . .

Ages later, through sheer nervous and physical exhaustion, they slept.

When Doc awakened, he saw Fidge sitting near him, her eyes scanning the vast dome of empty sky. She seemed so tiny and helpless sitting there. He felt sorry for her. The shadows had lengthened considerably. The deadly cold of the moon night was approaching. . . .

She turned as she saw him move, and her face changed instantly. The smile came back. "Good morning," she said cheerfully. "Have some breakfast." She offered him a handful of the fibrous stuff she had torn loose from the shadow of a rock

"Go ahead," she urged as he shook his head. "I ate some awhile ago, and I feel much better."

He took it and ate it through the tiny lock of his helmet that had been pro-

vided for that purpose. It tasted like a mixture of saw-dust, ground glass and burned sugar. But it was palatable, and it made his stomach feel better.

"We've got to get away from here before the darkness comes," he said, finally. "The insulation of our space suits will not stand up long against the terrific cold."

The smile faded from Fidge's round face. "But we can't keep ahead of the darkness!" she reasoned. "That would mean that we'd have to run somewhere between two and three hundred miles a day over mountains and craters. . . ."

"We don't have to keep ahead of the darkness," said Doc. "All we need to do is to reach the region of the north pole before the darkness overtakes us. There will be perpetual sunlight there."

He got to his feet. "Anyway, the rescue ship will be most likely to look for us there first of all. They will know that the north pole is our only hope for survival!"

Deep down in his heart, Doc knew that any type of rescue within the next two weeks was remote. And he knew that Bill—tortured by the moon madness—would not return. But he had to hold out some semblance of hope for Fidge.

They took off from the rim of the crater in a great, soaring leap northward, their gravs set as near minimum as possible. It was like flying through some fantastic nightmare where natural physical laws were non-existent. Rocky craigs and piles of jumbled stone slid slowly beneath them. Then, finally, their feet touched solid ground again—miles from the rim of the crater.

There was a mountain range towering above them. They leaped upward toward its ragged crest. . . .

Sometimes during their long race northward against the lengthening shadows they stopped long enough to eat of the fibrous growth that was always to be found in the darkness where sunlight never touched. Twice, when they could go no further, they lay down to sleep upon some lofty craig. They talked but little.

AT THE end of what must have been the third day, Doc knew that they had reached their destination. They were upon the topmost rim of another giant crater. One side of the rim sloped gently down to an enormous flat that stretched off into the distance. The other side dropped precipitously down into the black pit of the crater. From this point, he knew, the sun would always be visible in its endless journey around the jagged, broken waste that was the moon's horizon.

Fidge sank slowly down to the rocks with a tired little sigh. She tried to smile up at him. Then her eyes closed, her whole body relaxed and she slept.

Doc checked his oxygen tanks. One of them contained a feeble supply that might last an hour. The other, with its four-day supply, was untouched.

"Four more days," he said as he stood looking down at her. "Four more days . . . and then. . . ." He tried to drive the thought from his head.

For a long time he stood there looking at her. She seemed so helpless against the impending doom. And there was something else . . .

Something was stirring within Doc's chest. It was the first time he had witnessed that strange feeling for a woman. He had been too busy with school, too busy trying to cure people. And now, when it was too late, he found something stirring deep within him. Perhaps it was love. He didn't know. But, suddenly—above all else—*he wanted Fidge Kenyon to survive!*

She *must* survive! He knew now that

nothing else mattered to him—Bill, the mysterious spaceship that had passed them on their way to the moon, moon madness, the chemical to cure the bends—all were unimportant compared to her!

He had no way of knowing how long he stood there alone in the silent wastes before he made up his mind. But when his mind was made up, he acted promptly.

He took the full oxygen tank from his spacesuit and, careful not to awaken her, replaced it for the nearly empty one on Fidge's suit. "That will give you eight days instead of four," he said. "Perhaps a rescue ship will come. . . ."

Doc Bret's first notion was to throw away his helmet and to walk off into the shadows where he would become lost. Then he shook his head. He would get the bends and the moon madness. Fidge might find him, replace his helmet and oxygen tank, and nothing would be gained. *No, he had to make a complete job of it!*

Near him was the brink of the rim, and below the rim was the black pit of the crater. . . .

Doc took a step nearer to it and looked over. Down there in that blackness would be complete oblivion. *It was the only answer!*

Back upon the rocks, Fidge stirred slightly. Doc looked at her. Strange he had not noticed her beauty before, the way the little curl hung down upon her forehead. . . .

"Good bye, Fidge," he said quickly and softly. "I . . . I hope you'll understand."

Then he sprang out over the black crater in a soaring leap. He didn't look down as he adjusted the gravs so that he would fall heavily; he wanted to keep the image of Fidge before him until the last.

A thousand thoughts flashed through his head as he went plummeting downward into the black heart of the crater: Someone ruining the Kenyon line. Mysterious holes in the sides of the Kenyon ships. Two hundred people in the hospital. Bill. Moon madness. Fidge alone on the rock rim. Eight days of oxygen. . . .

And then came the awful *crash*. . . .

EVERYTHING was strange. The whole universe undulated and heaved and vibrated. There was silence and a great abyss, and a buoyancy like that of a feather in a gale. Doc couldn't make head nor tail of it. He was tired. He wanted to sleep. But something kept buffeting him about. . . .

Doc opened his eyes; but the light blinded him, and he closed them again. There was a buzzing in his head, and a distant thunder. . . .

"So . . . so this is . . . is death," he muttered. "But where are . . . are they taking me?"

A patient voice somewhere in a distant void was saying over and over again, "You're all right now. You're all right now. Don't get excited. . . ."

"I'm not excited," said Doc. "I'm dead."

He opened his eyes again. Somewhere before him—like a shimmering mirage—was a spaceship. It was the one that had brought him to the moon ages ago. That meant that Bill was dead, too. Had perished somewhere in space. And, Fidge? She was floating along beside him! The three of them! A rendezvous in Death! The eight days had gone!

And then the whole picture went out in a spinning, sickening blackness.

A pulsating sound like that of throbbing rocket motors drummed its way into Doc's consciousness. Mingled with the sound, were voices. Violent voices.

". . . and your father will never rescue you," one of the voices was saying. "He won't know where to look for you."

"No," came another voice, "he's too busy wondering about them holes that keep appearing in the sides of his ships." Somebody laughed.

"Then it was you. . . . You caused father's ships to spring space-leaks! You are deliberately trying to ruin him!" That was Fidge's voice! There was no doubt of it!

"Naturally," came the first voice again. "And once your father is ruined, another corporation will take over—a corporation that will pay me well for my work.

"And now, perhaps you will tell me about the chemical you discovered upon the moon. It might make things easier for you."

"Sure." It was the second voice again. "There'll be more money in that chemical than in droppin' acid on the side of old man Kenyon's ships."

Doc opened his eyes with an effort. He was lying upon the floor of the ship that had brought him to the moon. Beyond him were the controls that Bill had been battering with his fists when last seen. Two large wrenches lay near the controls—evidence that the controls had been repaired.

Between him and the wrenches were six men and . . . and Fidge!

He recognized two of the men instantly. Bersk and his ratty companion! The two men he had had trouble with in the cafe! And they were the ones who had been trying to ruin the Kenyon Line! They had heard Bill's babblings in the cafe! They had followed to the moon in search of the chemical!

Suddenly, a lot of things pieced themselves together with startling clearness in Doc's brain. Bersk and his men had seen Bill's wild flight from the moon and had gone in quick pursuit. They had overtaken Bill in space, had boarded him, had repaired the controls and had returned to the moon, hoping to find the chemical.

They had found Fidge, and they were now trying to force her to tell. . . .

The ratty man had Fidge by the arm. He was twisting it. "All right, sister," he was saying. "Out with it. Or maybe you'd like to see your friend here—" He indicated Doc. "—tossed out into space."

Dizziness returned to Doc. He found that he was standing on unsteady legs. Everyone was looking at him. One of the men by the controls had picked up a heavy wrench. Another had drawn a gun. Bersk had leaped to his feet and was reaching for something in his pocket. Fidge was shouting something he couldn't hear. Things were getting confused in his brain again.

DOC didn't know how Bersk's throat happened to get between his fingers. But it was there. And he was squeezing it.

Someone hit him on the head with something that hurt—a little. He dropped Bersk, wheeled about, picked up the other man and hurled him up against the side of the ship. The others were closing in. He couldn't find Bersk again. Everything seemed to resolve into floating shadows.

Doc remembered the crater. He should be lying there, dead. But he wasn't. Fidge must have found him. Maybe he was badly injured and all this was a silly dream. Maybe he had lain for several days at the bottom of the crater with a broken helmet, breathing in those heavy gases . . . maybe he had . . . had *moon madness!*

There was an explosion, a streak of light, and a sharp pain in Doc's side. He found the man with the gun, and

broke his face with his fist. The man with the wrench—or was it two men?—came at him. Doc didn't know exactly what happened, but the man—or men—went down before him. Others were clawing at his back.

The whole scene shifted and swirled, and became blurred like a picture out of focus. Something in Doc's brain was driving him relentlessly, giving him no rest, filling him with a crazy, superhuman strength.

He hurled bodies about. Picked them up and hurled them again. He didn't know what he was doing. His whole head seemed to be a bucket of bees. One shadow tried to escape him. He caught up with it, raised it above his head and hurled it savagely. Even as the act was completed, he knew that that shadow had been *Fidge! His Fidge! The girl he had fallen in love with!*

"Fidge! Fidge!" It was his own voice shouting her name. He couldn't find her.

He had fallen down a mountain once. Something was choking him. He had to get out of here. He had to have the air. Blackness was closing in.

There was a banging and clanging noise all about him, as if someone was smashing the world apart. There was a wrench in his hands. He couldn't remember why he had the wrench. Why was he hammering things with it? Oh, yes! He had to get out! Something was trying to choke him! And the blackness was closing in. . . .

Something splintered before his face. There was a rush and sigh of air. He had busted a porthole with the wrench! All the air would be lost now!

And then the blackness closed in upon him with a cataclysmic rush. . . .

"HELLO, Superman." It was Fidge. She was sitting on the edge of his bed, smiling down at him. The room was familiar. It was a room in his own hospital.

Doc was mixed up. He should be dead in a crater. He should be dead on a spaceship. Well . . . anyway, he should be dead! "What . . . what happened?" he wanted to know.

"Oh, nothing much." Fidge shrugged her shoulders. "You just fell down a crater. Then you got moon madness. Then, after we were rescued by Bersk and his men, you laid them all out, tore up the inside of the ship and threw a wrench through a porthole."

"But the air should have escaped through that porthole," reasoned Doc. "We should have died. All of us."

"I managed to patch up the hole," said Fidge. "I . . ."

"But . . . you . . ." Doc had a hazy remembrance of having picked her up and hurled her the way he had the others.

"Oh, yes. You tried to throw me through the side of the ship." Fidge nodded. "But the chemical we found on the moon saved me from being hurt much. It was the same chemical that saved you from being cracked up too much when you fell into the crater."

"Chemical?" Doc tried to sit up. "But we didn't find any chemical. . . ."

"Oh, yes, we did. It was that fibrous stuff. We were eating it all the time and didn't know it. And that's why we didn't get the bends when the air pressure left the ship. Bersk and his men had a good case of the bends when I turned them over to the proper authorities." Her lips tightened a little. "I guess they know how it feels to be caught in a ship that has a hole in its side."

"And Bill?" asked Doc.

"Ah, I'm all right." Bill got up from his chair at the other side of the bed. "But I'm sure sorry I was asleep in

that berth when you went into action."

Doc grinned, and returned his attention to Fidge. "You know," he said, reading something in those round, blue eyes of hers, "when I get out of this bed, we're going to take another trip. A nice quiet one. A sort of a honeymoon."

Bill paused at the door to look back at them. "Humph!" he snorted. "First he gets moon madness, then he gets moon struck. And hanged if I know which is the worst!"

THE END.

ROBINHOODS OF THE DEEP

By WALTER CHARTERLY

ALTHOUGH the archer fish is not dressed in green and does not roam Sherwood Forest, there is a great similarity between them and Robin Hood, for the archer fish also depends upon its arching skill to "bag" its supper —not with a bow and arrow, it's true, but with drops of water.

The archer fish is indeed an interesting specimen. He quietly seeks out his prey small insects—swimming either forward or backward to gain an advantageous position. Then he pushes his tongue against the roof of his mouth to form a perfect tube. By compressing his gills, a pressure is created which shoots either drops or a steady stream of water to stun his victim. The dazed victim falls into the water and is devoured. The aim of the archer fish is unerring and he has been known to "knock-out" his victims at a distance as great as five feet, although the usual distance is from 12 to 20 inches.

In the Far East, the archer fish is often sought after by fishermen both for its high food value and often to supply amusement. The archer fish, if caught, will become semi-domesticated, and often perform for the guests if a luscious insect is the target.

THE SON OF DEATH!

Hunted all his life, John Ward had developed strength matched by few men, and the alertness of the wild-beast. Then, on his 21st birthday the unknown danger that had always beset him was to be explained. . . . To the heart of deep Florida swamps the mysterious voice directed him. There he found a girl whose destiny had matched his, and menace that dwarfed the death-threats of the past. Don't miss Robert Moore Williams' classic of fantasy-fiction, "The Son of Death," in the big . . .

AUGUST ISSUE

fantastic ADVENTURES

On Sale at All Newsstands June 19

Here was a world of science, where rocket ships made trips to other planets in space . . .

Horsesense Hank in the Parallel Worlds

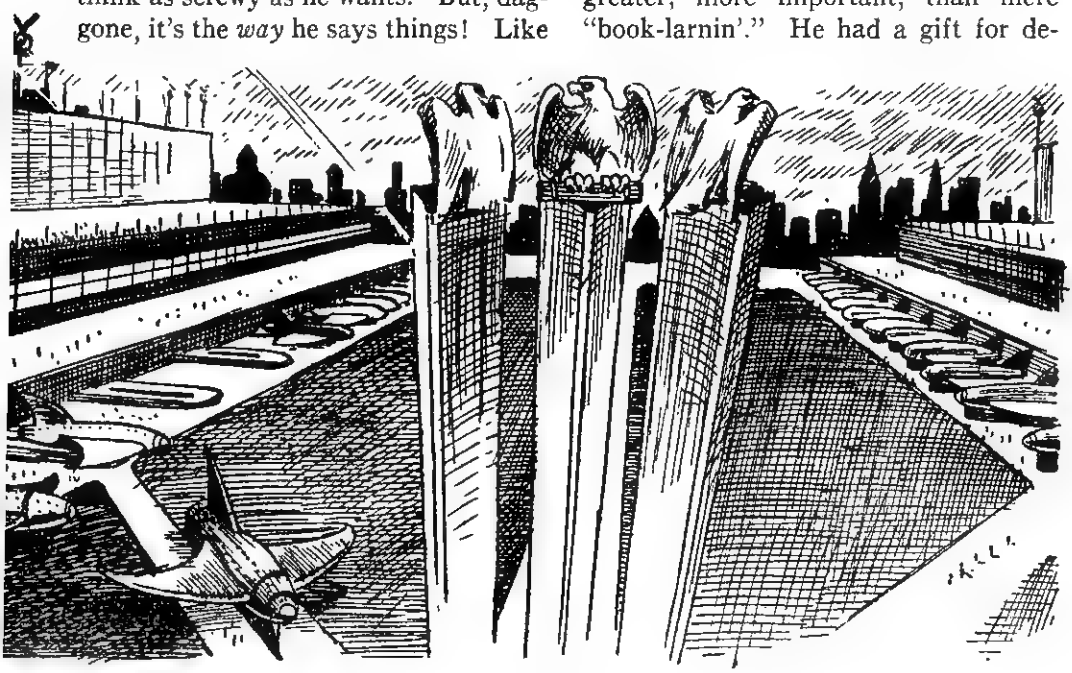
by NELSON S. BOND

THE whole damn thing was Jamieson's fault. He was a snippy sort of somebody, anyway, even if he was head of the U. S. government's physics research department. He liked nothing more than to fling his physical and mental weight around. Because he had an exaggerated amount of the first, and an exaggerated opinion of the second, he riled Hank Cleaver worse than boils on the postscript.

"It ain't jest *whut* he says, Jim," Hank groused one night. "That don't matter. There's jest two opinions: right and wrong, logical an' illogical. As a human bein', it's his priv'lege to think as screwy as he wants. But, daggone, it's the *way* he says things! Like he was the oney one had a speck o' common sense! Now, if I didn't have a *little* bit, would I be here?"

That question needed no answer. Hank was here—in Washington, D. C. —simply and solely because the men who run our nation had finally recognized his peculiar abilities.

"Horsesense Hank" Cleaver was not an educated man in the formal sense of the phrase. He had never completed college or high school, and it is an even money bet that he never got much farther than the sixth grade of the rural grammar school near his Lower Westville farm. But he had something greater, more important, than mere "book-larnin'." He had a gift for de-



termining the answers to problems of any scientific nature by means of plain, old-fashioned, common-sense horse-logic.

It was this gift which had lifted him from his lonely turnip-patch to the ivy-covered walls of Midland University, which alleged institution of higher knowledge had installed him to the Chair of General and Practical Sciences . . . and it was this same gift which had enabled him to serve his country well as Chief Estimator at the Northern Bridge, Steel and Girder Company during the first months of the war.*

Now a grateful government had transferred him to the nation's capital, where his straightforward reasoning might be at the service of the President himself . . . and because Hank Cleaver and Jim Blakeson are as inseparable as corn pone and chitlins, I was here with him.

As a matter of fact, dear old Washington-on-the-Potomac was beginning to look like an overgrown Midland U. campus. H. Logan MacDowell, president of the college, was here as a "dollar a year man"—and worth every penny of it!—while his charming daughter, Helen, Hank's fianceé, was working in the U.S.O. headquarters.

"It ain't," complained Hank, scowling, "as if I was hard to git along with. Gosh knows I'm easy-goin' enough—"

There was no gainsaying that. Hank was as mild and gentle as a Carnation cow.

"—but he plagues me!" confessed Hank. "Disagrees with most everything I say. Spouts facts an' figgers at me, when he knows dingbusted well I can't understand that kind o' talk. My brain don't work thataway. I jest git the theories an' work 'em out by plain, dumb hoss-logic—"

I said, "Well, what's the trouble now?"

HANK fingered a paper of cut-plug, tucked enough in his cheek to make him look as if he were munching on a medium sized billiard ball. This was his one vice. When he married fair Helen a few months hence, it would probably become *tabu*. Meanwhile, in the privacy of the apartment we shared, he kept his molars and incisors well lubricated.

"Wa-a-all," he said, "it's time!"

I stared at the clock. "Time? Time for what?"

"Not that kind o' time, Jim. I mean the problem o' Time. Whut it is, and how you can shift around in it an' all that sort o' stuff."

I said, "Oh. In other words, pal Jamieson has been making with the metaphysics, eh? On account of what?"

"On account," explained Hank, "of I happened to say wouldn't it be swell if somebuddy could go backward in Time and do somethin' to stop the Nazi movement from ever gettin' organized. Then there wouldn't be no war like we're fightin' today."

"That," I approved, "sounds like a swell idea. Go back and push a little paperhanger named Adolph Shicklgruber under a Munich street-car, huh? I'd gladly volunteer for the job—if there was any way of doing it."

"So would most of us. Oney Jamieson," continued Hank, " 'lowed as how it was impossible. He claims all this warfare and stuff is inescapable. Says the progress of mankind is foreordained, an' they can't nobuddy do nothin' to change it, ever. He says the Book o' Time was all writ up in advance, an' they wasn't no way to change it—" Hank squinted at me dubiously.

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*For previous adventures of "Horsesense Hank" Cleaver, see issues of AMAZING STORIES . . . March and November, 1940, May, 1942. —Ed.

"He quoted some pome out of a book called *The Di'mond Sailboat,* or somethin'—"

"Sue me if I'm wrong," I grinned, "but maybe it was the *Rubaiyat?* By an old Persian named Omar? He wrote:

The Moving Finger writes, and having writ
Moves on; nor all your piety nor wit
Can lure it back to cancel half a line,
Nor all your tears erase a Word of it."

"That's it, Jim," nodded Hank. "That's the poem he said. Well, I tried to reason with him. Told him he was all wrong. Things *couldn't* be thataway!"

I asked, "Why not, Hank? Lots of philosophers have reached the conclusion that existence is predestined."

"Mebbe so!" said Hank doggedly. "But it jest ain't logical. Life is chemical, an' existence is jest like a chemical equation, Jim—balanced on a hairspring. Every little thing which happens: the fall of an empire, the discovery of a new element, somebody's cold in the head, anything an' everything, becomes a factor. We live in the world we live in today because it's the only possible world under the conditions of our past!

"Of course, there could be—" Hank's eyes clouded. "There *could* be—"

I laughed at him. "For once, pal, you're caught in a middle. Your theory is just as good as Jamieson's, but no better. You can't prove it. So how about a couple rounds of checkers before we turn in?"

Hank temporarily forgot whatever new conjecture had occurred to him. He looked a bit petulant as he aimed a shot of liquid brown at the distant bronze jug.

"Now, looky here, Jim—you don't deny things would be a heap diff'rent if you an' me'd never met, an' I'd stayed home on my turnip farm?"

"No."

"Well, then!"

"But," I pointed out, "perhaps it was ordained that we should meet and that you should come to Midland U."

Hank groaned.

"Jim Blakeson, you make me plumb sick! You're durn near as bad as Jamieson. That settles it! I began thinkin' this afternoon mebbe I'd do it; now I've made up my mind!"

"Do what?" I demanded.

"I'm gonna settle this question," he said firmly.

"I'm goin' back to the past an' find out if you two are right. If things is inevitable, or whether circumstances can change 'em."

I gulped. Hank sometimes said fantastic things but he never makes boasts he cannot fulfil. This, however—

"T—the past?" I faltered.

"You heard me," declared Hank petulantly. "I guess I'll be kinda busy f'r the next couple o' days. I'm goin' to build me one o' them there now time—travel machines!"

CHAPTER II

Double Feature

WELL, you know me! Old brain-like-a-fish Blakeson. I stared at him foolishly for a moment, then, when he said no more about it, decided Hank had finally developed, along with his many other virtues, a sense of humor. So I chuckled, and he chuckled with me, and we went to bed a little while later, and I proceeded to forget all about it.

It didn't even dawn on me, when the next morning he went out and came home with a couple armloads of wires, tubes and miscellaneous doogadgets,

that he meant business. He was always prancing home with some kind of lab equipment or other—you know how amateur scientists are.

So I went ahead with my duties, which were plugging the sale of U. S. Government Bonds and Stamps—and, by the way, you better buy 'em, kiddies!—and three days whisked by as days have a habit of doing.

Then Travis Tomkins, chief technician of the observatory, halted me one day on the street.

"Say, Blakeson, where's Cleaver hiding himself? He promised to help me plot the orbit on that new comet he and I discovered."

"He and you!" I snorted. "Where do you get the community spirit? All you did was point the telescope where Hank told you! Oh—he's places, doing things. I'll tell him you want him."

And less than an hour later I bumped into H. Logan MacDowell, himself, in person, and not the captive balloon he looked like, to meet the same query.

"James, my dear lad," puffed the erstwhile Prexy of our former Alma Mammy. "I have been endeavoring to ascertain the whereabouts of our erudite rural companion. If you could enlighten me—"

"If you mean," I interpreted, "where's Hank, I guess he's home."

H. Logan pawed his plump jowls speculatively. "You might inform him that my daughter is most disturbed about his apparent disinclination to seek her company."

"H-how's that again?" I asked. MacDowell frowned at me disapprovingly.

"The custom," he hrrumphed, "is commonly known as—er—dating."

"You mean she wants to fling woo," I said, "and old Hank ain't been parking on the divan lately? Now I *know* he's off his button. A gal like Helen, and with the marriage date already set—all right, Prexy. I'll tell him."

SO I guess those two chance meetings served as eye-openers, because when I went home that evening, I came to the realization that Hank Cleaver had turned our tiny flat into a superscientific workshop. There were odds and ends of things all over the living room; when I entered I heard a humming in Hank's bedroom, a curious, whining wail that stopped just as I entered, gave way to the tapping of a hammer on metal.

"Hank!" I yelled.

No answer. The lamps dimmed for a moment then rose again as the humming sound drowned out my call.

"Hank!" I cried again.

Still no answer. So I walked over to his door, and banged. "Hey! Come out, come out, wherever you are!"

And Hank came to the door, hair rumpled, a smear of grease running diagonally from his right temple to the tip of his nose, collar open, sleeves rolled high—

"Was you callin' me, Jim?" he asked.

"Who, me?" I retorted elaborately. "Oh, no! I was just addressing an envelope—hey, what the hell makes around here? Anyhow? Everybody and his brother has been asking me where I hid the *corpus delicti*. What are you making—"

Then I looked over his shoulder and saw it.

It was the wildest, weirdest looking thing you ever set eyes on in your life. I can't describe it exactly. They say English is the most elastic of all languages, but even *it* lacks the words to describe some things. Like this one.

But I'll take a running start and see what happens. It was a machine. It was made of metal and glass and gadg-

ets and doolollies and sugar and spice and everything nice; that's what little *girls* are made of! It was shaped something like the tonneau of a 1931 model Packard, and somewhat more like a big, old-fashioned bathtub with a hood. It was roughly oval, but only roughly so, because you couldn't exactly decide what shape it was. It *wriggled!*

So help me, that's just what it did! Coils of wire wound around and around the tonneau part, in which there were two wide upholstered seats and an incomprehensible dashboard, bedecked with twelve or twenty dials; these coils twisted out to fore and aft of the egg-shaped structure—and vanished!

It had other features. But that's all I saw during that first, startled glance. And that was enough. I loosed a squawk of despair and held on to Hank for dear life.

"W—what is it?" I yelped. "Great whispering winds, what do you call that—that monstrosity?"

Hank said, "Now, ca'm down, Jim. It ain't like you to act thisaway. They ain't no cause for alarm."

"That's what they told Mrs. O'Leary when she bought a cow," I moaned, "only look what happened!" Then suddenly I remembered our conversation of a few nights ago, and I choked on my own incredulous words. "Hank—that's not *it?* Tell me it's not a—a time machine?"

Horsesense Hank grinned and tugged at a straggling wisp of hair.

"Wa-a-all, I reckon I could tell you that, Jim, but it wouldn't be whut you mought call the truth. 'Cause that's jest whut it is. The machine that's gonna carry us back into the past to prove my theories!"

I said, "It's a time-machine," weakly. "A—a time machine," I said—and then the double-take struck me. *"Us!"* I howled. "Us! Into the past? Oh, no! Gangway, pal—"

HANK grabbed me and held on tight. He's about four inches taller than I am, and dawn-to-dusk workouts behind the plow built him muscles like tension springs. My legs churned air, and I got nowhere. Hank said aggrievedly, "Now, Jim—I never thought you'd let me down like this—"

"Talking about letting down," I bleated, "how about me? Who's holding who? Leggo, Hank! I just remembered, I'm supposed to meet a guy about four thousand miles from here!"

"Now, durn it, you got to come with me!" said Hank. "It wouldn't do me no good to go gallivantin' off to the past by myself. I got to have witnesses. I'll have this machine all finished by tomorrow—"

Then it wasn't completed yet! That was a horse of a different collar. I stopped struggling. I said, "Will you be kind enough to take your greasy paws off me, you dope! My goodness, you act as if I were afraid of something!" I moved over to the machine, studied it with pacified interest. "How does it work?" I asked.

Hank grinned sheepishly and worked one bulldog tipped toe into the rug.

"Aw, it wasn't nothin' much, really. Not when you understand whut Time is."

"Oh, naturally!" I said. "But isn't it funny? For the moment it seems to have slipped my mind. What is Time?"

"Why, it's another dimension o' matter. Some calls it the 'fourth dimension,' but that's plumb silly, o' course. Dimensions is dimensions, an' it don't matter how you number 'em so long as you know how to use 'em.

"Anyhow, whut this here machine does is run down a pathway through the Time dimension jest like an auto runs

on a road or an elevator runs up an' down or an airyplane flies 'round in circles. See?"

"No!" I said.

"Well, it's as simple as A-B-C, Jim. I just made a helical vortex with these here wires as the motivating cores, and slung the machine in it like a basket. Right now while I test it, I got it operatin' on A.C. house current, but when I push this little doogummy—" He pressed a small switch. "I shift it to self-generatin' D.C. These other levers control the distance in Time it travels, and there's space-location finders, too.

"Only thing I ain't figgered out yet is—"

"Yet!" I gasped. "Yet! You've done all this within four days. Solved a problem that has eluded men of genius for centuries, and you're worried about one minor detail!"

"Well, it ain't whut you might call minor, Jim—"

"Hank, you never had a day's mechanical training in your life. I know that. So tell me—how on earth could you know how to make this machine?"

Cleaver blushed.

"Why, it just come sort o' natcheral, Jim. 'Peared to me as if they was oney one way to make it, so—O golly!"

A stricken look swept suddenly over his face, and I spun to discover the reason. The Reason was five-foot-two of loveliness standing in the doorway of our apartment. Breath-taking but outraged loveliness, answering to the name of Miss Helen MacDowell.

Her dark eyes were like thunderclouds, and her foot tapped the carpet angrily.

"Well!" she said. "Well, at last I find you!"

IT WAS I who had to hold Hank Cleaver now. He was trying desperately to wriggle out of my grasp. I believe he had some idea of trying to crawl under the carpet. Finally he surrendered, turned to face his fiancée.

"H-hullo, honey!" he said.

"Don't 'honey' me!" snapped Helen. "What were you two talking about just now?"

Hank had temporarily suffered a paralysis of the vocal cords. I went to bat for him.

"Dimensions," I said. "Hank was explaining to me how the Time dimension operates."

Helen sniffed. "Time, indeed! Perhaps he needs an explanation of Time himself. I suppose you completely forgot you had a date with me an hour and a half ago, Hank Cleaver?"

Hank strangled. I said apologetically, "Now, Helen—don't be angry. I guess he forgot dimension it."

"That," scorned the girl, "is just the sort of poor joke I should expect from you, Jim. Well, I'm going to marry him and get him away from your bad influence soon—" Before I could think up a good comeback to that one, she shouldered past me into Hank's bedroom-laboratory, eyed with disdain the wavering, nebulous whatchamaycallit standing there. "What do you call *this?*" she demanded.

"It—it's a time-machine, honey," said Hank meekly.

"Hmmm! Funniest looking clock *I* ever saw!"

"Not that kind of Time, sugarplum." Hank visioned forgiveness in her aroused interest. He sprang to her side, pointed at the various dials and gadgets. "This takes you to the past, so you can watch history being made. Or into the future—"

Helen, being a woman, had no time for nonsense like that. She got right down to fundamentals. "It's not streamlined," she said. "I don't like the color, and the dashboard isn't

pretty. Where's the cigarette-lighter? And those seats don't look very comfortable—"

And she climbed into the front seat.

Hank said, "Now, Helen, don't git in there yet! It ain't quite finished, an'—"

She ignored him with magnificent aplomb. "I'm glad *one* of us has good common-sense," she said. "If you're going to be an inventor, someone has to keep an eye on you to make sure your inventions are practical.

"Just as I thought! These cushions aren't at all comfortable. They're not wide enough, either. Get in here, Jim. Beside me—that's right! And you, too, Hank. Now do you see what I mean? These seats should be lots wider—"

Hank said nervously. "All right, sweety-pie. Now let's go see a nice movie or—"

"And what," continued Helen blandly, "is this tiny key for? A glove compartment? Let me see inside—"

Hank stiffened like a strychnine victim. His eyes bulged, and his voice exploded in a sudden roar.

"Don't touch that! Helen, don't—!"

He spoke a split second too late. Already the key was turning. Freezing in my chair, I heard a thin, whining hum from the time-machine's motors. The framework shook, and I was suddenly aware that where about us, a moment before, we had seen a brightly illumined bedroom, now there was nothing but flickering mists of gray . . . wavering . . . bottomless . . . formless . . .

"Dagnab it!" cried Hank. "Oh, dagnab it to blazes! Now you've went an' did it!"

HE REACHED across the terrified girl, snapped over the key. Instantly the flickering ceased . . . the gray, bottomless mists dissipated . . . the illumination returned. We were once again back in the bedroom, sitting in the time-machine.

But—there was a stratling difference.

Standing beside us, staring at us with eyes huge as moons and mouths incredulously agape, were three people. And those three people were—

Helen MacDowell . . . Horsesense Hank . . . and myself!

CHAPTER III

The Whacky Worlds of Maybe

I WAS the first to break the horrified silence, and I hereby claim the all-time, All-American and world's record for silence-shattering—because *two* of me broke it at once!

I wailed, *"Omigawd!"* Then started like a bishop in a burleyque as I heard my own voice wailing, *"Omigawd!"*—and saw myself whirl and make a beeline for the door.

Then Horsesense Hank—*my* Horsesense Hank, I should say—put his hand on my shoulder and said, "Easy, Jim!" And the *other* Horsesense Hank put his hand on the *other* me's arm, and said, "Easy, Jim!", and two Helens asked, simultaneously, "Hank — what in the world has happened to us?"

Hank's brows were furrowed. He said slowly, "Well, it's this way, honey —" Then he stopped as he realized that his identical twin was saying the identical words in the same quiet voice. The two Hanks stared at each other for a second, then the other Hank nodded. "Go ahead," he said. "Mebbe you c'n explain it better'n me."

The Hank sitting beside me acknowledged the nod with its exact duplicate.

"Awright," he said. "Well, near's I c'n figger out, it's this way:

"Helen done went an' turned on the

key while we was sittin' in the machine. Which set it into operation. Like I told you, this machine travels in time. An' that's jest whut it done!"

"But—but you said it wasn't working yet, Hank!" I moaned.

"No, Jim. I said it wasn't *completed* yet. There's a difference."

It still didn't make sense. I gestured towards the three "usses" standing beside us.

"But a time machine ought to go into the future or the past. These people—"

Hank shook his head. "Jim, I showed you them dials on the dashboard. They control the future-past Time element. And—and they're the gadgets which wasn't completed yet!"

I pawed my hair feverishly.

"But if they weren't connected . . . if we're neither in the future nor in the past . . . where are we? And who in the world are *they?*"

"We're in the present," said Hank, "but we're in a *different* present. We didn't travel forward or backward. We slipped sideways across the Time dimension to another present based on an entirely different set of possibilities.

"Leastwise—" He glanced inquiringly at the other Hank. "—that's whut it 'pears like to me. Hank—er—Mr. Cleaver, how 'bout that? Whut happened in *your* past? Didn't she turn the key?"

"Are you crazy?" bleated my double. "Of course she didn't turn the key! She just this moment entered the room."

"Our" Helen seemed suddenly to understand. Some of the stupefaction left her eyes, a knowing look took its place and she nodded to "their" Helen.

"Delayed, dear? What was it? Your—?"

THE other Helen blushed and nodded. "Yes. Just as I was leaving the house it snapped. I had to run back in and tack it up."

"I thought of doing that," said our Helen. "Then I decided to just pin it together and come along. Why, this is ridiculous! Surely a little thing like a broken—"

"But it did!" interrupted Hank hastily. "It's like I told you, Jim –any little thing will change the hist'ry of existence. You see whut happened now? Back there an hour or so ago, Helen broke her—something happened to Helen—Which give her a choice of decisions.

"That was a deciding p'int in the hist'ry of *all* of us. Way it happened to you folks, she went back an' sewed it up; that made her a few minutes late, an' she never got time to climb into the machine.

"Way it happened to *us*, Helen just jury-rigged her skivvies—'scuse me, honey-lamb!—an' come along. Got into the machine, turned the key an'—here we are!"

"Yes, here we are!" I squawked, "but where the hell *are* we? Logic or no logic, Hank, this is one time I will not believe my own eyes! These other 'usses' don't exist. *Can't* exist. Why, it violates the Law of Conservation of Matter! The same thing can't exist two places at the same time—"

"Sure it can't," agreed Hank impatiently. "But I'm tryin' to tell you, this ain't the same Time! This here is a diff'rent world entirely. This is one world from an infinite number o' possibilities arisin' out o' the past. That other Jim Blakeson *looks* like you, Jim. An'—" Hank studied him speculatively. My double had jerked a bottle of rye from the bedroom medicine cabinet, and was feverishly engaged in warding off pneumonia for the next ten years. "—an' I must admit he *acts* like you, too—but he ain't you. He's

you like you woulda been under a different set of coordinates."

This time I had him! Had him cold! Triumphantly I cried, "Then if he's not me, this whole thing is a delirious dream. Otherwise we couldn't meet. Because *one* of us has no real existence. Even granting that at any given point in the past an infinitude of things could have happened, the fact remains that only one thing *did* happen! So one of us is alive, and the other has no real existence!"

But Hank shook his head slowly and sadly.

"Nope, Jim! I'm sorry, but you're wrong again. It don't work out that way. From the beginning o' Time I reckon they musta been billions o' different crooshul situations—an' each one o' them has made way to another possible future, each one as true an' valid as the rest.

"The big trouble is—" And here he looked worried for the first time, stared at his silent prototype. "But *you* built the machine, too. You know whut the trouble is."

And the other Hank nodded his head soberly.

"Mmm-hmm. Been wonderin' about it ever since you arrove. Whut you goin' to do about it?"

"I dunno exactly," confessed Cleaver No. 1. "I—I mean *we*—had planned on installin' a magnetic grapple in the machine so's we c'd alluz get back where we come from—but now, dingbust it, I'm in the machine an' can't git out, an' the equipment ain't in stalled—"

That was too much! It was bad enough arguing with Hank Cleaver, but to sit there listening to two Hank Cleavers talking and arguing with one another—that was a little too much for me! I sent out an SOS to my alter ego.

"Look, Buster, or Blakeson, or Narcissus,* how about a Share-the-Health plan with that bottle? After all, I'm the guy who bought it."

He said, "The hell you did! But here—" And held out the bottle. I reached for it—

HIS hand passed completely through the walls of the machine in which I sat! My hand passed completely in and out of the bottle he handed me; the bottle fell right through my fingers, my arm, and my right foot—and crashed on the floor below! Both of me wailed, good dusty rye gurgled cheerfully into the carpet, and I stared at Hank Cleaver dismally.

"Now what?" I demanded. "Now who did what when?"

And Hank, a haunted look in his eyes, said, "Sorry, Jim—but that's another o' the drawbacks to this time-travel business. You c'n see things an' hear 'em and smell 'em, but you can't *tetch* 'em. Because as fur's you're concerned, they *ain't*, an' as fur's they're concerned, you don't exist!"

Helen MacDowell stared at him.

"You mean we can't step out of this jaloppy when we take it into our minds to do so?"

"Nope!" said Hank miserably. "We're locked in like caged mice."

The thought was right, but he expressed it much too masculinely. At his words, both Helens emitted little squeals of fright. And "our" Helen swung into action.

"Then I," she cried, "am getting out of here! Right away! I'm going back where I belong—"

"Helen!" howled Hank, agonized. "Hank—try to—!"

*Narcissus, according to legend, was a youth so infatuated with his own appearance that he spent all his time admiring his own reflection in a pool of water.

But both roar and plea were bootless. For again my brainy chum's fiancée had clicked the key, the room had faded and all sights and sounds were lost in that gray, flickering veil. Once more we were on our way!

ONCE when I was a kid in knee-britches I hitched my express-wagon on behind what I thought was a leisurely, local truck. A few minutes later I was startled to find I was tied to a private ambulance on emergency call! Worse yet, I could not unscramble my amateurish knot. I have never forgotten my wild, heart-pounding ride through the crowded city streets . . . lashing back and forth giddily like a bob in a boiling cauldron . . . glimpsing through terrified eyes the unfamiliar streets through which we whirled at lightning speed . . . viewing a weird kaleidoscope of running feet, dodging autos, skyscrapers that seemed to topple precariously toward me as I rocked and swayed and trembled . . .

What happened now made that childhood memory appear as gentle and undisturbing as Tit-tat-toe Night at the Old Ladies' Home. It was the same thing, only more so! Again I experienced that sensation of wild, headlong, uncontrollable flight—but this time not only was the destination unfathomable, but also were the sights I saw and the sounds I heard so weirdly incredible as to half madden the brain!

And that was because Horsesense Hank would not let bad enough alone. He kept reaching over and fingering studs, keys, and gadgets on the dashboard. He pushed one doojigger, and the sensation of rising joined in with the other stomach-churning feelings we were undergoing; he pushed another, and I felt a swift surge forward; to complete my feeling of utter rout, he kept turning off and on the motivating key. It was whenever he did so, whenever the gray flickering disappeared, that we—we saw things!

And what things we saw!

Our first "stop," I plainly recall, was on the main street of a great city. We were right smack-dab in the middle of the street, which didn't seem to affect us one way or the other, but it sure raised hob with the people amongst whom we suddenly and, I suppose miraculously, appeared.

One of them walked right through us, then, discovering what he had done, loosed a howl of terror and went racing down the street, trailed by a streamer of polysyllables which had, so far as I was concerned, absolutely no meaning.

It was a scandal to the jaybirds that he should be out walking anyway, because all he had on was a pair of soft sandals and a loose, flowing gown that looked like somebody's bleached bathrobe.

The streets were narrow and cobbled, the buildings tall and graceful, colonnaded with pillars, each of which was carven into the form of some heroic male or bulgy shemale. A fountain tinkled on a grassy lawn some few yards from us, and a bevy of olive-skinned babes were doing the family wash in the basin beneath it. When they clapped peepers on us, they joined voices in one chorus of fright, picked up their skirts and dusted.

Hank snapped the key.

HIS next random stop was no better. If anything it was worse. We found ourselves on a dusty road, surrounded by trees and fields in which labored scores upon endless scores of —American Indians! They bent diligently to the labor of harvesting, while over them stood a grim-visaged soldier clad in glistening buckler, greaves and

helm. As we sat watching, a mounted band of similarly clad warriors swung up the road. They saw us. Instantly their leader bellowed a command—and dust flew as they charged down upon us.

I'll never forget the look on the leader's face as, with lances levelled, banner flying, swords drawn, they came banging hell-for-leather right up to, into and through us!

Hank snapped the key again.

The next sights came and went so fast that I never fully saw nor comprehended any of them. In turn and variously we found ourselves in: a quiet village inhabited by plump little farmers who spoke German; a towering city lighted only by flickering gas-lamps; a dirty little slum-section wherein evil roisterers roared bawdy songs in a French *patois;* a big temple, gilded and magnificent, surrounded by chanting rows of priests; the middle of a brick-and-plaster wall; a huge airfield upon which were reared fully a dozen monstrous egg-shaped crafts, one of which, as we stared bewildered, hurled itself heavenward in a tremendous burst of flame to be lost, a flaming dot, in the ebon reaches of the sky.

Then a thriving little town, where for the first time we saw printed words we could understand. "POST OFFICE . . . Hunter's Fort . . . Virginia . . . C.S.A."

All these and dozens more, until my brain staggered before the questions it could not answer. And Hank continued to punch keys with—I could not help thinking—a desperate intentness.

But it was Helen who broke first. She was atremble with emotion as she reached forward and stayed Hank's fingers on the studs, stayed our mad voyage in what was, by now, the almost pleasant grayness of the void. And, "Hank!" she cried. "No more, Hank! Oh, please, no more! I can't stand it. Not without knowing where we are, what these places are, what it all means. . . ."

Hank took his hands from the controls reluctantly. For a long moment he studied us. Then,

"I should think you'd understand by now," he said. "I been tryin' to 'splain it to you all along. What we been seein' is just a fraction o' them other possible worlds I was talkin' about. These are the worlds that *might* o' been!"

CHAPTER IV

"A Stitch in Time"

"M-MIGHT have been?" I repeated. I didn't say it just like that, I guess. I said it more like, "M-m-m-might have b-b-been?" All right, so my teeth were chattering! So what? So maybe it was cold; how do you know?

Hank said woefully, "There's millions of 'em, mebbe billions. Mebbe trillions; I dunno. I was just 'sperimentin', tryin' to find which course this here machine took—if any—so I'd know—"

Helen's eyes were deep with surmise. She said, "Do you mean, Hank, that any of these different existences *might* have been the history of the United States if other things had happened?"

"Might have been," agreed Hank, "and is. You gotta get that clear in your minds. These places is just as real to the people in 'em as our world is to *us*. If we was to try to tell 'em about our civilization, they'd think we was nuts. Because things took a different twist for them, and they got a way of livin' which don't even conceive of our ways."

"And I can't conceive of their ways!" I interrupted flatly. "Hank, this is going too far! You admit we've

been in the United States—all right, make it the North American continent if you want to!—all along. But we've seen men of a dozen different races, heard a dozen tongues spoken—"

Hank scratched his head.

"Well, now, Jim, I guess you know I'm not what you mought call a scholar. But I done read up a leetle bit about hist'ry. An' it 'pears to me like all them things we seen *could* o' happened, if things had tooken jest the littlest bit of shift somewheres in the past.

"Take that first city we seen, f'rninstance. Kinda funny, accordin' to American standards, I'll admit. But suppose the Greek Empire hadn't never fell? Ain't it plausible to figger as how maybe some day the expandin' Greeks might o' colonized America? They was a sea-farin' people, you know—an' great lovers o' beauty, Art and the social graces. But they was rotten bad scientists, f'r the most part. Seems to me like their civilization woulda reached a high peak, then never got no higher . . ."

Helen, her fears assuaged by a reasonable explanation, nodded vehement agreement.

"He's right, Jim. And those women *were* talking in Greek—or at least a modified form of it. I remember, now, a few words—"

"Them other guys," mused Hank, "them sojers, seems like they mought o' been Romans. They was great ones to let the conquered people work the fields for them, an' I noticed they had the Injuns on W.P.A.

"But all them guys talking Dutch—I can't figger that. It ain't reasonable to suppose it would be on account of if Germany had won the first World War. Even if they did, they couldn't o' made the United States talk German an' act German in twenty-five years!"

For once I knew more than Hank Cleaver! I gloried in my little instant.

"I'll bet I know what 'moment in history' made that existence possible! Back around the time of 1776, Hank, the fathers of the infant United States gathered to decide which language should be the official tongue of their new nation. The choice was a toss-up between English and German. English became the official language of our country by the slim margin of *one* vote—cast by a German-American who based his decision on the belief that English was the more pliable tongue!"

HANK smacked his hands together.

"That's it, by gum! Purty nigh has to be! Now you see whut a dif-f'rence one little incident makes? If that man had voted f'r his native tongue, this country woulda become a lazy, self-contained Tootonic colony, 'stead of an up-an'-at-'em, commercial sea-power. An' them other places we seen—"

It was easy now that we understood the system.

"Gas lights," supplied Helen, "if Spencer Tracy—I mean Thomas Edison—hadn't been fired from his job as candy-butcher on the railroad."

"America a French colony," I suggested, "if Napoleon hadn't been defeated at Waterloo. He had designs on us, you know. That's why he placed Maximilian in Mexico—"

"A powerful priesthood governing the world," broke in Helen again. "Would that be the Papal State? Or could it have been—Atlantis? If that island had not sunk?"

"That there 'C.S.A.' had me stumped f'r a minute," said Hank, "but I got it now. That stands f'r the 'Confederate States of America!' If Pickett had come up at Gettysburg!"

"But that other world of 'might-have-been'?" I demanded eagerly.

"The most awe-inspiring one we saw? The one where giant spacecraft lay in their cradles? What could that have sprung from?"

There was silence for a moment. Then Hank queried, "Did either o' you happen to notice the name o' that port?"

Helen said, "I—I'm not exactly sure, but I thought it was the daVinci Spaceport—"

"That's whut I thought, too," said Hank. "I reckon there's your answer, Jim. Back there in the Middle Ages, one day old Leonardo musa blew his nose or stubbed his toe or done somethin' he didn't do in *our* hist'ry—an' as a result, he succeeded in doin' whut he never done in our time, though he spent half his life atryin' to. He invented aircraft.

"Which give man a flyin' start o' four hundred years or so over where he is in our universe. So that in the mebbe world which sprung from daVinci's accident, man has learned how to naveegate space."

WELL, that was all very well. I suppose I was getting an education in cockeyed history that Beard or Gibbon or any tome-pedant would have swapped his eyeteeth for. But I'm not the kind of guy who exists on brain-food alone. I've got a hollow, pear-shaped bulb a few inches south of my diaphragm, and regularly, about six times a day, this aforesaid vacancy declares itself ready, willing and able to take care of a few pecks of assorted groceries.

A mild attack of looseness around the belt reminded me that this was one of those times. I said, "Talking about space, Hank, that's what I've got the most of in my stomach. What say we tool this period-perambulating push-cart up to an 'ought-to-have-been' café and give the inner man something to think about?"

Helen nodded approval to my idea.

"I could use a little food myself, Hank."

Hank wet his lips. "J-jim—" he faltered.

"Now, look, pal," I declared firmly, "I know you're having a good time. This sort of thing is right up your pet alley. But have a little consideration for your passengers. All Helen and I want is victuals, and we'll travel with you from here to the universe where Adam didn't eat the apple—right, Helen? A round trip for a square meal; that's a fair exchange, isn't it?"

HANK said, "Jim—Helen—whut I got to say ain't nice. From the minute we started this trip, I been worryin' about one thing. The other 'me' which we met back there in the room realized it, too, an' he was also worried. You see, like Jim oughta realize atter he couldn't grab aholt o' that likker bottle—we can't eat or drink while we're travelin' in this crate!"

"We can't—!" I realized, suddenly and completely, that he was right. That was one of the things he had tried to make clear. We had no real existence to these other worlds, nor they to us. I'm afraid I went into a sort of panic, then. I said, "Then we've got to get back to our own time, Hank, or we'll starve to death!"

Hank said miserably, "But that's jest it, Jim—how are we gonna git back to our own Time? We don't know where it is. Like I awready said, we seem to be travelin' sideways across a billion possible Times. An' since I didn't get the temporal grapple installed, like I planned to before Helen—"

He stopped. But Helen had caught the implication of his words. She cried

suddenly, "It's all my fault! Because I thought I knew it all, Hank, I've let us in for this. Oh, I wish I'd never tried to be so smart—"

"That's a woman for you!" I grunted disconsolately. "Better late than clever! Hell, Hank—you mean we're doomed to sit here in nothing, looking at worlds of food and liquid, until we check out from malnutrition?"

Hank said staunchly, "We ain't gonna give up that easy, Jim. We're gonna keep on tryin'. Mebbe by plain dumb luck I can work us back to our own proper place in Time."

And thus we started anew our time-hopping. Hank's fingers went to work on the cryptic studs and keys. Again we became the wraithlike visitants of fourscore and umpteen odd, incredible worlds. We saw one in which great bearded Norsemen ruled America . . . another in which the Union Jack flapped above the docks of a great seaport . . . dozens upon dozens of Americas we saw, and each of them was, by some guess, quite plausible and logical. Had Leif the Lucky's colony not been wiped out by the pox . . . had the Sons of Liberty not roused the colonists to rebellion against George III . . . had Aaron Burr not duelled and killed Hamilton . . . had Columbus not believed himself headed toward the Indies . . .

Hank's brow was as smooth as a corrugated washboard by now, and there was nervous haste to even his customarily placid fingers as he continued to press our shimmering buggy forward along the transverse lines of maybe.

"It ain't logical!" he moaned once, softly. "Even if they *is* diff'rent circumstances, they oughta spring from each other outa certain points. Like the pictures you see of fam'ly trees, or genee—ologies. But we ain't getting nowhere an' we ain't gettin' there fast!"

MEANWHILE, I was getting hungrier by the minute. I don't know why it is, but there's nothing will make a man want to eat more than the knowledge that the cupboard is bare. My thoughts were not nearly so concerned with the wonders I was viewing than with visions of ten-inch T-bone steaks smothered in mushrooms . . . roast fowl . . . cranberry sauce and gravy . . . fried country ham with apples . . . things like that.

And the drink question was even more acute. After all, we had been caged up in our little egg, now, for several hours. We were beginning to feel puh-lenty thirsty, and our desire for water was not lessened by the thought that it was impossible to get any.

That's when it began to seem to me that everywhere we visited, food and drink were prominently displayed. Once we landed in the middle of a gigantic banquet-hall. Tables groaned with dainties fit for a king—and sure enough, there was a king seated at the head of the table! He was a mighty sick-looking king, though, when he laid eyes on us! He let loose a howl in what Helen claimed was modified Spanish, and dived under the table. We left hastily, before his Kingship should leave his subjects kingless.

I've often wondered, since, how many legends sprang from our visitations. There must have been hundreds of wild stories told by Indians, Frenchmen, Englishmen, Spaniards and Dutch who saw a shadowy egg with three wraiths in it appear sudder y out of nowhere, and as quickly disappear.

It was probably because of this that Hank turned to me, finally, with a pledge.

"Tell you one thing, Jim," he said earnestly. "If we get outa this here now mess, the fust thing I'm gonna do is bust this machine into a million pieces. I done learned a lesson. It ain't right to go messin' around in things like this when you can't control 'em perfect. It just ain't according to Hoyle to do it."

"But if it contributes to science—" I said.

"It don't, Jim. It's all puffectly clear an' logical to me, now. You see, it wouldn't do a man no good to go gallivantin' off into the past, because all he'd do is start a new chain of couldbes. An' it don't do no good for a man to slide sideways through Time, because whut he learns ain't of no consequence to him in his Time, an' just disturbs the folks he meets. So after this, I'm gonna confine myself to tryin' to improve the affairs o' the world we do live in—

"Hey! What was that?"

I had heard it, too. I stared at him wildly. "It sounded like—like somebody calling your name!" I said doubtfully.

"That's whut I thought!" yelled Hank. "Listen—it's a voice, comin' closer!"

We all heard it plainly now. A voice calling curiously, pleadingly, through the gray mists that engulfed us.

"Hank! Oh, Hank Cleaver! Where are you?"

We all yelled. And what I mean, we yelled loud!

And then, out of the formless veil, came a shimmer of light. A nebulous *something* that grew more solid, became more and more sharply visible as our cries attracted it, and finally coalesced into—

Our own time-machine! With us sitting in it!

CHAPTER V

The Time Twins

IT'S funny how, in moments of stress, dejection, or great elation, your mind will focus upon some tiny, relatively unimportant point.

I should have been whooping with joy to look upon a set of familiar faces, even though those faces were our own. But do you know, my first conscious reaction was one of rage? And why? Because, naturally, the first guy I looked at was myself—and there I was, sitting in that other ship, calmly munching on a great big rosy apple!

I said, "Why, you damn glutton! You ought to be ashamed! I've got half a notion to—"

I grinned at me . . . I mean, *he* grinned at me . . . or I mean I grinned at he . . . oh, hell, you know what I mean! The other Jim Blakeson grinned at me and said, "What's the fuss, pal? Hungry? We figured you might be. Here, catch!"

And he tossed the remainder of his apple at me. I clutched at it greedily. But of course it fell right into and through my grasping fingers, through my lap and the base of the time-ship, and into the emptiness below. I've often wondered what became of that apple. At that particular moment, we had just lifted ourselves from a weird America where the ruling class was made up of magicians, necromancers and students of demonology. I've often wondered if the apple came tumbling out of the sky to smack some son of a witch on the head.

Then the other Hank leaned forward and yelled to our Hank. "Got here soon as I could, Cleaver. I had to get the machine finished proper so they wouldn't be no mess this time!"

And our Hank nodded. "Figgered

as much," he replied. "Kinda thought you'd come atter us, but I didn't know whether you'd find us or not. How'd you trail us?"

Hank Number 2 looked sort of modest. He said, "Why, I had to fix up a new type o' gadget. 'Peared like since me an' you was almost identical the same person, so to speak, we ought to have sort of psychic bonds. You know, like this E.S.P. they talk about? So I whipped up a psychic trailer an'—an' it seemed to work right well."

If I had needed any further proof that these Hanks were, fundamentally, the same person, I had it now. Both of them were 'scientific pioneers'. They had a native, inborn ability to create, seemingly at a moment's notice, gadgets of such scientific scope that no other man would have believed them possible. But neither of them could ever give a plain, coherent reason as to how their invention worked or why they had dared think it would work in the first place!

My Hank accepted the statement as if it were quite commonplace.

"Nice goin'!" he said calmly. "You gonna lead us back where we belong?"

The other Hank shook his head.

"It's a leetle more complicated than that," he demurred. "I been figgerin' it out, an' it works oney up to a certain point. You see, I c'n oney take you back to where I was where I fust seen you. If I take you back to your place, I don't exist. But you *do* exist in my place, because you was in it once, see? So—"

"Mmm-hmm!" nodded our Hank gravely. And he glanced at Helen and me speculatively. "Did you tell them the rest of it?"

"Why, no, I didn't. I figgered whut they don't know won't disturb 'em. O' course there'll be a leetle bit o' confusion at first, but—"

"What," demanded both Helens simultaneously, "are you two talking about?"

THE query silenced both Hanks suddenly. Then Hank Number 2 said, "Well, come on. Follow me. I'll go slow an' call the stud settin's for you so's you can follow. One-oh-four—"

"One-oh-four!" repeated our Hank dutifully, and he pushed a button. So off we went again!

Even I could see that this time our journey was a shorter, more direct and more logical one than the haphazard voyage on which our incomplete time-machine had borne us. I began to recognize a certain form, a certain coherence, to the unfolding "historic" or pseudo-historic stops we made from time to time to check our course.

Out of the scramble of heterogeneous possibilities we merged into a "history" which was based on certain fundamentals every American schoolchild knows. We left those impossible Americas where foreign nations ruled, settled into a background approximating that I was accustomed to. There were still differences. Once we bumped into a political meeting of a party known as the "Bull Moose"; Helen said, "Why, I remember reading about that party! Theodore Roosevelt—"

"In 1912," finished the other Helen. "We must be getting close, Hank."

"Yes, sweety-pie," said our Hank abstractedly, and blushed a brilliant crimson as he saw our Helen glare at him.

We had one frightening experience. We came to a Time wherein we looked out upon our little college town—we had set the positional stops by now, and were hovering above the possibilities of that place—to find it a smouldering pile of wreckage and ruin. We

were so horrified by this that we had to stop and discover the reason. It took some little doing, but finally we succeeded in learning the whole story. This desolate scene was my fault!

In one of my possible existences I had made the horrible mistake of paying my favorite tailor the money I owed him. Overcome by this unexpected fortune, he had gone out on a big drunk. As a result, he had come home and set his shop on fire. The fire, getting swiftly out of control, had laid the entire city to ruin, killing hundreds and making thousands homeless.

My double and I shuddered when we heard this awful tragedy. Helen shuddered, too, and stared at me severely.

"Let that be a lesson to you, Jim Blakeson! Never run up bills like that again!"

"It is a lesson," I promised her. "I swear I will never pay any tradesman every cent I owe him so long as I live!"

AND then, finally, the last stud had been pressed, the last instruction given and taken. And for the final time our two ships were hovering in the gray mists which are above Time's passageways, and our two pilots were preparing for the move which they seemed to believe would solve our difficulty. And Hank Number 2 said, "You've got it straight, now, Hank! You sit perfectly still. I'll guide my machine into yours, an' at the moment of impact, you and I will both press our temporal landin' studs—right?"

"Right!" said our Hank. "I guess it's the oney way to do it, huh?"

"Oney way I c'n see. We got to make a merger—"

"A *what?*" I yelled, sitting bolt upright. *(Continued on page 230)*

TWO DICTATORS! One on Earth! One on Zagor, new planetoid in Earth's orbit. Pilots, their minds controlled by the two merciless killers, bombarded Earth with shattering death. . . . Could young Captain Whitman—son of a "traitor," with his heart lost to an exquisite Zogarian girl—save the world that sought to destroy him? Thrill to "Peace Mission on Planetoid X" by the brilliant Dwight V. Swain in the

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Hank said, "Now, ca'm down, Jim. Me'n me figgered this all out, an' it's the oney way we can get back to normal. You see, we an' ourselves in the other ship is almost identical. Within five minutes or so of each other we got the same brains, mem'ries an' bodies.

"It's absolutely impossible for us here in this car to ever get back to *exactly* the sitchyation we left. Because under them circumstances, the ship wasn't never completed.

"So we got to do the next best thing. That is, we got to merge with ourselves an' become the same person again except that we will never have made this trip? Get it?"

"If I do," I howled wildly, "I'm crazy—and if I don't, I'm crazy anyhow. I lose whether I win or lose. But if you think I'm going to become part of that silly-looking ape over there—"

The other me was howling with equal frenzy. "Silly looking ape yourself! Let me out of here, Hank! I'm not going to let *him* be part of *me*—"

And the two Helens were squawking, too. Neither of them entirely fancied the other. Now both began yammering at the same time. The two Hanks looked at each other. And our Hank said, "Now?"

"*Now!*" said the other Hank.

I saw the two machines drifting together. I cried aloud. I felt the hulls contact . . . then there came a moment of brilliant dizziness . . . a jolting sense of concussion . . . and a prickling sense of motion . . .

Helen eyed with disdain the wavering, nebulous egg-shaped machine standing before us. "And what," she demanded, "do you call *this?*"

"It—it's a time-machine, honey," said Hank. Then a strange look dawned in his eyes. "Hey!" he said. "Hey—*it worked!*"

I COULDN'T answer him. Because momentarily I was a riot of mental confusion. My thoughts were so wild, and so chaotic, that they simply didn't make sense. Here I was, Jim Blakeson, standing in a room before Hank Cleaver's brand-new time-machine. Helen had just entered the room a moment ago. And yet—and yet my memory told me that hours had passed in this room, and that Helen and Hank and I had not only talked about the machine, but had stepped into it, had gone places in it, seen incredible things . . .

Then it all came back to me in a flash. Just as it came back to Helen and Hank. And the three of us stood there like wide-eyed cretins, trying to arrange our minds to fit an impossible situation.

It was Helen who spoke first. She moaned weakly,

"I—I'm her, now!"

"And if you're her," I quavered, "I'm him! What a mess! I'm that heel who was eating the apple . . . I mean, I'm that wise-cracking guy who was hungry . . . I mean, I'm both of me!"

Only Hank retained a vestige of self-control. He put his arms around Helen, placed one warm hand on my shoulder. "Now, don't git all het up, Jim. You're both of 'em—that's right. But it don't make no diff'rence, you see, because the time lapse was so small. Atter the merger we became both ourselves, which was lost in Time, an' ourselves which, atter seein' ourselves, went out an' rescued us. Do you understand?"

"Only too well," I moaned. "I understand that the biggest mistake of my life was finding you in that Westville turnip patch. Oh, if I'd only left you there—"

I tottered toward the medicine cab-

inet. It was after I groped for the missing bottle that I remembered having handed it to me and breaking it before. I buried my face in my hands, clinging tightly to one reassuring sanity in a mad world. At least I had only one personal history up to a few minutes ago!

Then Hank disengaged Helen gently and moved to the side of his machine. He stared at it long and mournfully—then picked up a screwdriver.

"I promised me," he said, "I'd dismantle this here thing. An' I'm agonna do it, too, afore my good intentions weaken. It's too dangerous f'r a man to have around. Seein' other time-possibilities, experiencin' twin memories—" He stopped suddenly, stared at us. "Twin memories: the ideers o' two minds! I wonder—"

"Wonder what?"

"Them mental cases in hospitals, Jim. You know—them what do you call 'ems?—schizophrenics? Fellers with split personalities. I wonder if maybe somehow or other them poor guys ain't just fellers which somehow or other managed to git shunted off their own proper time-track into another one? An' got their personalities so balled up that they go plumb loco tryin' to straighten 'em out again? It could be. It's logical enough . . ."

I groaned and lurched out.

Behind me boomed the merry clank of metal on metal. Hank was cheerfully dismantling his machine. He had already chosen to forget our recent adventure. Tomorrow was another day. Tomorrow he would be off on still another dark quest down the mysterious byways of law and logic.

And why not? For he was the scientific pioneer—Horsesense Hank. And who ever heard of a horse with nerves?

A Beautiful Girl—A Wrecked Car!

They were the prelude to a HOMICIDE CALL! . . . There sprawled Stuart Gorham on the floor, a bullet hole in the middle of his forehead. . . . We lined up all four suspects: the exquisite Lucy Gorham of the faked auto accident, respectable Cleveland Gorham, artistic John Farquhar, and weasel-like John Smith, burglar. All had alibis—*and every suspect's alibi was a bald-faced lie!* . . . It's thrilling, dangerous, fascinating, tracking down the desperately brutal murderer. And "Homicide Call" is but one of many great stories by your favorite mystery authors brought to you in the thrill-packed September issue.

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Meet the Authors

LeRoy Yerxa

"SO—you want the story of my life?" The Editor left me clawing the air for my breath. I dragged out a photo before he could change his mind.

The most amazing thing in my mind, is the fact that I was ever born at all. It was 1915—with a good-sized war going on at the time. Old Town, Maine produced tons of wood pulp, woolen goods and canoes. I suspect my entrance was some small attempt to insure the future of the pulp industry.

There was a big, New England kitchen which dominated the remainder of the house in both size and importance. A flour-elbowed grandmother manufactured tons of baked beans, johnny cake, biscuits and donuts. They all had a lot to do with my present one-hundred-ninety pounds of scale punisher.

Grandfather, a bean pole of a man who forever dripped tobacco juice and good spirits, taught me to love pine woods, fishing, and stories. Gramps had millions of words ready for immediate release. All about the moose who stuck his nose in the air and walked down Main Street during open season, and the pickerel that didn't get away.

By the time Dad had grown a large stomach and the best disposition a man was ever blessed with, I had been dragged in and out of every public school in New England and New York State. To make up for the loss of "book larnin," I read each and every public library dry.

In Detroit, with five other children by that time delivered by the long-shanked bird with the oversized bill (I do mean bill), I started my career in Cooley High School. Having traversed the rivers of Tom Swift, Horatio Alger, and Tarzan I developed a terrific superiority complex and dived headlong into the staff waters of the school paper. I still insist that four-page, eight column spread was a fine affair. It took me away from mathematics, history and any number of teachers who shuddered whenever they met me in the halls. The school let down its hair and laughed aloud—the day I left.

In a tiny, but no less interesting Michigan town, I acquired in proper sequence—a typewriter, a lovely farmerette wife—and three offspring. The portable wouldn't feed five of us—and I face the terrible shock of going to work with my dainty hands. About that time a good friend warned me that if I ever amounted to a thing—it would be through writing or talking my way into places where the greenback is known to exist. Since then I've talked my way *out* of vastly more good positions than one man ever should. That leaves writing as the last stand.

To get local color I went thrice to the west coast by drive-a-way—spent summers in national parks—and thumbed myself into most of the pleasure spots of the country. I tried to work for the Rocky Mountain News—and every radio news spot in Denver. Along came a swell boss (they do exist) and asked me to write letters for him that would please the irritated customer. (Same boss is still wondering how he ever made so horrible an error.) I'm wondering how long it will be before he corrects it.

My first check for writing was a huge affair in actual and mental possibilities. The sum, however (three bucks), didn't buy much bacon. For three days my slippers and pipe were ready when I reached home. My wife addressed me fondly as "Yes, Me Lord." After that the spell broke and I was out on a limb with the typewriter again. I stayed there, with occasional sales of all caliber—for some time.

As long as the writin' machine will work and my index fingers hold out—I'll go on trying to convince some editor that I'm the flaxen haired youth of his editorial dreams. Perhaps, in a mild fit of dementia I'll produce a few good yarns.

There is nothing more amazing about me than the facts that—I'd walk many a mile for a fishing rod—am very fond of guys like Rap who say little but say it helpfully—and that I have a terrific wanderlust which is held partially in check by three tots who keep my pay checks nibbled down to short figures.

But—don't get me wrong. I'm nuts about writing.—*LeRoy Yerxa.*

DISCUSSIONS

AMAZING STORIES will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brickbats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

LIKES FOOTNOTES

Sirs:

I am a boy of only 14 years, but I am very much interested in sf. magazines. I have read *Amazing Stories* for about a year. I like your magazine especially because of the footnotes. I am nearly finished with the July issue, and what I have read so far is excellent (they always are). Both covers were good, especially the back one.

How are the developments of U-235 and the new jet impulse motor coming along? Do you know anything about a group that are going to take the first rocket to the moon in 1983? If you could, please tell me who they are, and other information about them.

Now that your monthly issues are giant size, are your quarterlies going to be a 2 in 1 instead of 3 in 1 magazine?

ROBERT BENEDICT,
96 East Utica,
Buffalo, N. Y.

U-235 experiments are a strict military secret these days. Also the jet motor. As for the group planning to go to the moon, we know of none who have set a date in 1983. There is a group called "The American Interplanetary Society" in New York City. G. Edward Pendray is president. A letter addressed to him and the society will be delivered. The quarterlies will remain as they are, 3 in 1.—Ed.

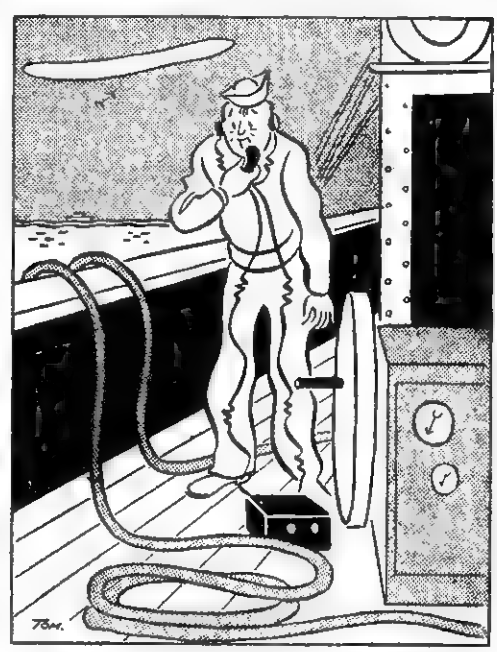
OOPS!

Sirs:

Read your cover blurb. Nuts. The cover was a stinker in more ways than a few. That was a nice green man. That was a nice scanty clad dame (wow, nuts, pooey, *et cetera)*, that was nice bug eyes she had. That's a nice bunch of pressmen you have, letting the press miss out on the guides, this latter which nearly makes me cross-eyed (and cross at you perpetrators) trying to pick out the merged—overlapped—details. This, of course, affects the back cover, too, but despite this, it was an excellent job of artistry, even if it was someone subbing for Paul.

I read the *Observatory*. The last sentence of the second paragraph does not apply to this, the May issue. I have a system of rating (formerly for my own use) copied from Jimmie Fidler. Stories not receiving at least a two unit rating are only fair, anything less is what the front cover this month was: a stinker. *Lord of the Crystal Bow* was a 4 unit story. I don't know why, looking it over later, I didn't put it in the three unit bracket unless it was the humor content. As you know from previous communications, I like humor, preferably in large doses. *The Crystal Planetoids* is next, a 3½ unit story. *Return of Launcelot Biggs* tied with A. R. Mackenzie's *Juggernaut Jones, Salesman* for a three unit rating. *Horsesense Hank Does His Bit*, 2½ units. *Sutton's Strange Voyage, The Case of the Mesozoic Monsters*, and *Arctic God* all tied for a 2 unit rating. *The Incredible Slingshot Bombs*, and *Destroyer From the Past* tied at 1½ units. *Martian Miniature, Caveman Meets Blond*, and *24 Terrible Hours* were good for 1 unit.

There's just about 3½ columns of Discussions in this issue. Out of a magazine of 272 pages, I would surely think that it would be possible to have more. Guy (Genius) Gifford buys this mag just for the letters (so he says, anyway). I have



"Honest? Well ask her if she can get a friend."

not as yet seen his letter in AMAZING that I can remember. What does this tell you? People like to see their work in print (yes, I do too). I have sent two or three letters in to AMAZING. Not long, but covering the issue. Both times, the part I most wanted to appear was deleted. Now I ask you, is that any way to treat a hard working letter writer? I'm asking you to relent, Mr. Editor, and let us see *more* and *complete* letters in print. In a magazine so large, you should be able to scrape out an extra column here and there, don't you think? But enough of this pleading on bended knee. I honestly don't expect this complete letter to appear. I won't dare you to print it, that's childish. But I am expecting a gigantic improvement in AS's (yes, and in FA, too) Readers dep't.

I am not asking for trimmed edges, but for gosh sakes, staple the mag together better; I hate to have it fall apart. "Trimmed edges *would* be an improvement, tho'," wistfully.

LYNN H. BENHAM,
411 West Howard St.
Crothersville, Ind

We haven't cut this one, have we Lynn? This question of a longer department hasn't been settled yet. What do you say, readers? More letters? Drop us a line.—ED

JOLTED!

Sirs:

Here I am again, after a very long absence. What jolted me out of my usual complacent lethargy I can't say. Maybe it's the new large sized AMAZING STORIES and *Fantastic Adventures*. It was obvious from the February issue, I believe, that the large size was to be more or less permanent. Why, I'm not sure. Maybe you have an overly large supply of stories on hand, and

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FOR COMPLETE DETAILS SEE THE JULY ISSUE

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maybe this is how you intend to get rid of them a little faster. If so, it's a pretty good way.

Your two mags are now much better as far as the average reader is concerned, because, as mentioned before, he's getting more for his money now. Not that the stories themselves are any better as a whole; just longer. Personally, I don't feel very much inclined to plow through three or four thud and blunder novels every issue. Enough action is enough, and too much is too much, PERIOD.

Illustrations are definitely improving, what with Finlay, "Smith," Hadley, Sewell, and swell covers like Fuqua's for the March AMZ. Paul, of course, is still turning out good stuff on the back. "Smith" tipped his hand on the pic for The Secret of Lucky Logan. If he *isn't* Binder he's so much like him that no one could tell the difference. The rest of his interiors weren't so hot (I restrained myself then), but that first one, um yum! It's *the* best, I believe, as far as AMZ is concerned. (NO, I *haven't* overlooked Finlay.)

Speaking of Lucky Logan, while it's a good story, it just doesn't read like the good old Bond, and I was very much disappointed in it. It's even *silly* in some places, f'rinstance take paragraph six on page 101, "There he had raised his child according to certain secret theories of his own. No one knew about this, *you know*, until years later. "That 'you know' struck me as being one of the most infantile what-ever-you-want-to-call-its I have seen in the pros for a long, long time.

As for authors, I think you would do well to get more material from such authors as Asimov, Russell, Bates, Bester, Bond, Williams, and one or two others. Maybe Shelton, Costello, or Cabot. Give McGivern and O'Brien the old heave-ho (those guys turn out what is essentially the same story month after month and lord, is it sickening!), and tell Wilcox to take a little more time with his stuff. Oh, yes, Kuttner. He's okay, but could have picked something better than the Mc-O'B plot. Even so he did a better job than the originators.

Now, assuming that you *have* read the foregoing paragraph, tell me to go to blazes and throw this thing out the window. After all, most of your writers are making (or trying to make) a living by selling their stories. If you want to buy their stuff, and the readers seem to like it, okay. If I've got anything to say about it I'll be in their shoes sometime.

Still there, or did you take me at my word and throw this out? If not, we'll continue (there's no stopping me when I get started). At this point I'd like to point out what I think is a little discrepancy in your latest contest story. Now it clearly shows in the illustration—and sort of halfway states in the story—that the flashlight falls on the switch and *pushes it* DOWN. To the best of my knowledge all switches of the type apparently used are closed by pushing them *up*, and opened by pulling *down*, thus the current should *not* have been turned on. Right?

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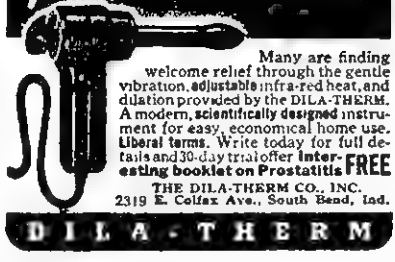

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Wrong, Mr Marlow. We aren't unloading a lot of excess stories. We actually can't get enough good stories today, what with the army taking all the writers to its bosom.

As for Smith, he's Smith, and not Binder.

As for the switch in question, it was a home-made installation, and your editor remembers exactly the same instance when we installed a switch upside down.—Ed.

RATINGS ON JULY ISSUE

Sirs:

I've just finished the July Amazing Stories, and it was so good I had to write to compliment you on it. All the stories were just the right size and just the right number of them were there.

Here's my rating on the stories:

1. *Gods of the Jungle*—the best serial in a long time!

2. *The Return of Hawk Carse*—how about a sequel?

3. *Squadron of the Damned* — make O'Brien continue this thrilling story!

4. *Blitzkrieg in the Past*—Cabot still turns out swell plots!

5. *The World Beyond*—Cummings is always writing about a new Utopia!

6. *The Powers of Darkness*—Swain is a master of suspense!

7. *Election Campaign on Saturn*—more of this Kaletsky humor!

8. *Peter Pettigrew's Prisoner*—this story belongs in *Fantastic Adventures*, not to mention that the illustration very distinctly misspells the hero's name "Pettingrew."

Here's my rating of the illustrations:

1. St. John did a wonderful job on the cover and also on the interior illustration!

2. Settles did a masterpiece on the back cover.

3. Magarian does a better job every time!

4. Robert Fuqua seems to have changed his style.

5. Ed Gordon is an artist you should keep.

6. Ned Hadley is awful in drawing space suits and rocket ships!

7. Milburn isn't so bad at all!

8. Did Hugo Wolf illustrate "Landscapes of Other Worlds"?

9. Joe Sewell used the same illustration for Scientific Mysteries this month as he did last month. How come?

10. Jackson did one of his worst jobs in illustrating O'Brien's novel.

Jack E. Fortado,
Box 314,
Rodeo, Calif.

Hawk Carse is coming back to our pages soon. In fact, several times. Pettingrew was misspelled, and we had a new plate made for the illustration at the last moment. Imagine our horror to discover that it did us no good, and the wrong plate got into the issue anyway! Yes, Hugo Wolf illustrated the Landscape. As for Mr. Sewell, this was part of the Pettingrew mixup—just to make it perfect, the whole job was bungled! We're correcting this month! Noticed it yet?—Ed.

(Concluded on page 239)

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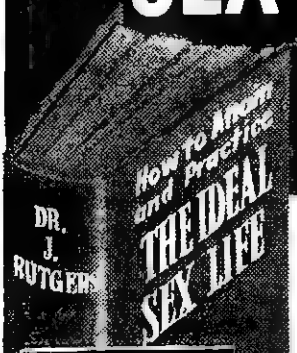

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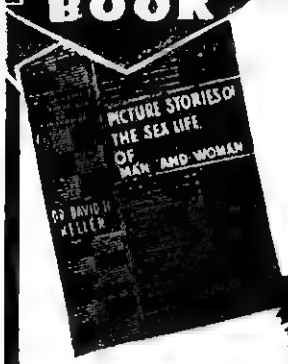

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AIRCRAFT of URANUS

by HENRY GADE

The airship depicted on our back cover this month operates on the jet-propulsion principle. Air, taken in at the nose, drives it

URANUS, the giant world of perpetual storms and freezing temperatures, harbors beneath its surface a people partly amphibian, and partly land-going. They are a highly developed race, scientifically and have produced a ship capable of traveling as an airship, above their planet, or as a submarine, beneath its surface in their underground water-world. Artist James B. Settles has painted a vivid conception of this strange aircraft.

The principle of jet-propulsion, which furnishes this ship with its driving power, is a new one on Earth, but has been carried to high perfection on Uranus.

Simply, it operates on compressed air. Air enters a circular duct in the nose, where the propeller would be located, had it an air-screw, and passes back into a powerful compressor. This compressor is a normal aero-motor, using an internal combustion turbine in teaming up to compress the air.

The air then is expelled through a smaller duct, or series of ducts, at the tail of the ship. These outlets are controlled. Added to this force, the exhaust gases of the motor in the compressor aid the kinetic energy of the jet in driving the ship. When in the water, this motor converts water into steam and drives the ship by direct steam-jet.

Jet-propulsion is not rocket-propulsion. Jet propulsion provides higher speed in denser atmosphere, and even in so dense a medium as water, the efficiency is very much higher than in the stratosphere. The rocket motor is much more efficient in high altitudes, or in space itself, in sharp contrast.

On January 31, 1941, Colonel Mario de Bernardi, Italian Schneider Trophy pilot, flew a jet-propulsion ship for the first time on Earth. It was the Italian Caproni-Campini C. C. 1 jet-propulsion airplane. He flew the screwless ship for ten minutes.

Later, Signor Secondo Campini designed and built a new and bigger machine, the C. C. 2. It is a tandem, two-seat, enclosed-cockpit monoplane, with a low-slung wing. It has a single-fin rudder, and retracting undercarriage.

A speed of 130 miles per hour was attained during a test flight, but no attempt was made for speed, and this is no indication of what the jet-propulsion aircraft is capable of doing.

The Uranus ship is a sleek, bullet-like affair, with a needle-sharp nose. The cone which takes in the atmosphere (or water as the case may be) is perhaps nine feet in diameter, and provided with ducts that carry the air to several separate compressors, located directly through the central axis of the ship, which is itself perhaps 80 feet in length.

Four fins, in themselves both directing agencies and jet tubes, stabilize the ship and provide a means of steering. Unlike the Earth ship, it has no rudder, directional controls being entirely incorporated in the jets.

Smaller, exterior replicas of the jet motors are mounted on each fin, to provide for slow mooring power when landing, underwater, at the home port of the Uranian.

Air (or water) taken in at the front, actually doubles its compression ratio, which results in an accelleration capacity of almost undreamed strength. These ships are capable of slipping through water at nearly 150 miles per hour, and of splitting the heavy atmosphere of Uranus at speeds in excess of 800 miles per hour. However, all travel is done at low altitude (on Uranus the atmosphere is very dense up to 40 miles above the surface, and such heights are considered "low altitude") and the ship never reaches outer space. It would be powerless without air to compress, and its motor exhausts would be too weak to move it.

On Uranus, these ships weigh more than our heaviest battleships, exceeding 100,000 tons in some cases. This is due partly to the extreme gravity of Uranus, and partly due to their size. Even on Earth, they would weigh (or displace) a good 50,000 tons.

Constructed of steel, their strength is incredible, and their capacity for cargo-carrying enormous. To the Uranian, to whom travel on the surface of his planet is almost impossible, due to extreme cold, and rough terrain, and great distance, these ships provide the only means of conquering his vast world.

Truly here is the most efficient aircraft in the solar system, operating on the world most ideal to its power principles. A ship for Earth engineers to dream about!

(Concluded from page 236)

CRITICISMS

Sirs:

I have been reading AMAZING STORIES for quite a few years, and have really enjoyed it. But everything isn't perfect So I'd like to offer a few criticisms, which I hope will be taken as constructive.

Your present size is swell.

Keep away from the type of story dealing with Nazis and Japs, not that I favor them, but I certainly would not like to see A. S. become an instrument of spreading hatred.

Let's have serials more often.

Please stop putting those one-column drawings in as you did with "The Avengers." They disrupt the picture the reader builds up as he reads the story.

Cut out short stories and put in novels and novelets.

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Your editor hates the Japs and Nazis. We can't lick 'em with love, and we gotta lick 'em! They are treacherous murderers. If we can be an instrument to bring them to justice—good!

Serials coming up. Other readers seem to like more illustrations.—ED.

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Wallace Riley has several back issues for sale (one to three years old) of a few science-fiction and weird magazines. Anyone interested who can pay 5 cents to 15 cents apiece for them, plus postage to his address, write him at RFD Rt. No. 1, Atlanta, Texas. . . . Henry Gonlin, 834 Lovett Way, Pittsburgh, Pa., would like to get E. R. Burroughs' books on Pellucidar, Mars, and Venus. Please send list and prices. . . . August Corrine F 1/C, U. S. N., *U. S. S. Antaeus*, 3 Div. % Postmaster, New York, N. Y., would like to hear from girls all over the U. S. A. He is five feet eleven weight is 155, has blue eyes, brown hair and is 23 years of age. He was born in New Jersey. His favorite diversion is dancing. . . . Bill Harmon, 15, would like to correspond with anyone anywhere. He speaks Esperanto, Spanish and some French. He would especially like to correspond with boys or girls any age interested in Esperanto. His address is 1042 Horley, Downey, Calif. . . . Irene Holzer, 47 Ct. K, Y. M. V., Bridgeport, Conn., would like pen pals between the ages of 15 and 20. All letters answered promptly. . . . Ann Danko, 57 Ct. K, Y. M. V., Bridgeport, Conn., would like to correspond with boys and girls between the ages of 15-25. She likes jazz music, dancing, sports, reading and will answer all letters promptly. . . . Alfred Maxwell, Opelousas, Louisiana, calls for all stfans and fantasy readers in Louisiana to write him immediately in regards to the forming of a Louisiana Fantasy Society. La. must have a place in the world of fantasy and a successful society of this sort would give it one of prominence. Replies to letters guaranteed. . . . S. M. Ritter, 1160 Simpson St., New York City, has about 60 SF and fantasy mags that he'd like to trade for others or for books of history or biography. He would like to hear from real history and biography readers. . . . Loren Sinn of Carnation, R. No. 1, Washington, would like to contact all Washington State fans. . . . Robert Kalanja, 323 Cavitt Ave., Trafford, Pa., would like to hear from boys and girls between ages of 16 to 19. His interests are biology, chemistry, science of sight and sound, and reading. . . . Mary Nelson, 455 Westervelt Ave., New Brighton Richmond, N. Y. C., would like to correspond with readers—soldiers, sailors and anyone else in Uncle Sam's armed forces. She is eighteen, five feet four, has brown hair and eyes. Her hobbies are dancing, reading, and writing. She will answer everyone. . . . Richard Smith, Swansboro, North Carolina, 14 years old, 5 feet 9 inches tall, and would like to correspond with persons from 13 to 16 years old. . . . Richard Cranfill, 1557 Crescent Drive, Tyler, Texas, would like to secure an issue of "The Voyage that Lasted 600 Years" and get rid of some "Burroughs" books. He would also like to trade a Monoply set for almost anything of value. He would like to correspond with male or female sf lovers, ages 12 to 16. . . .

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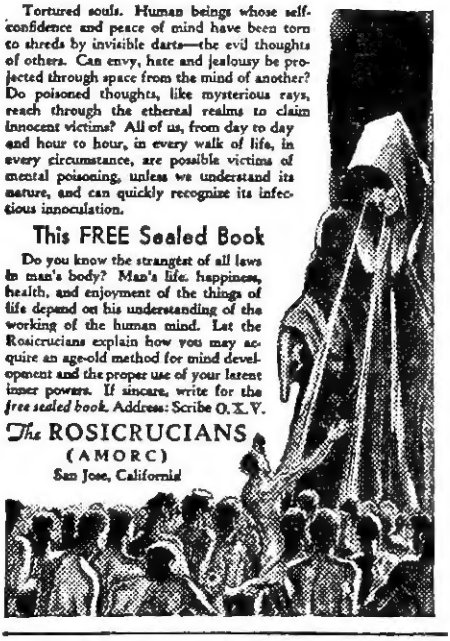

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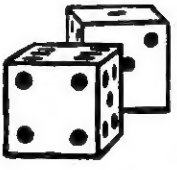

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WARFARE IN THE WATER

By ARNOLD BERMAN

FOR many years a favorite theme of science fiction authors has been the creation of whole worlds of monsters in the sub-microscopic realms of minute particles of matter. Many have been the thrilling stories conceived and written about this subject. But the recent development of camera and microscope technique has proven that the fantasy writers were closer to truth than fantasy in their accounts of what went on at sub-microscopic levels.

In fact nothing they produced could equal the actual truth for strangeness and surprise. It has been known for some time that the drop of water was a battleground for greedy, ferocious creatures whose constant fight for food and survival would rival anything in the normal sized world. But the recent camera improvements have given us a picture of these creatures that pale into insignificance the accounts of science-fiction authors.

If a human being could be reduced in size and equipped with a diving helmet and lowered into a drop of water—here are some of the things he might see:

First, as his eyes grew accustomed to the murkiness, he would see oddly-shaped creatures resembling sea horses flashing before him. These would be the *paramecia,* comparatively peaceful fellows, content to live on the natural bacteria, rather than turn cannabilistic. Their search for the succulent bacteria is timeless and endless. They might be compared to cows grazing eternally on luscious grass.

Off to one side our spectator might notice a cluster of barrel-shaped objects. Something stirs them and they begin to roll forward like marbles. Everything is calm and quiet—and then the storm breaks. The barrel-shaped objects slash forward into the huddled ranks of the *paramecia* with the ferocity of a tiger attacking a herd of sheep.

These barrel-like objects are *didina,* the killers of the microscopic world. The viciousness and ruthlessness of their attack might cause our human onlooker a few qualms. They impale the struggling *paramecia* on their sword-like snouts and kill them with their venomous poison. Suddenly their snouts this the *paramecia* disappears.

Our observer watches the cruelly unequal struggle continue. The *paramecia* are helpless before the ravenous onslaughts of the tiger-like *didina,* and not until their hunger is completely satisfied do they slow down their ferocious attack.

Now, glutted and torpid, they roll away. But before they have gone far, our human observer notices a gorgeous, blue-green creature clinging to a filament of floating vegetation. There is a sinister, watchful air about this creature that might cause our observer to focus his attention on him.

His interest will be repaid, for this colorful creature is the ***trumpter,*** the natural foe of the *didina.* As the *didina* roll beneath the filament of vegetation the ***trumpter*** drops to the ground back of the *didina.* The struggle is furious and swift, the ***trumpter*** eventually devouring the *didina* almost whole.

The variety of species in this sub-microscopic kingdom is endless. Our observer might watch for hours and never see two of the same species of creature flash before him. However, in one respect, all of these forms of life are united by their desire, which is to exist, and their impulse, which is to fight.

THE END

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AIRCRAFT OF URANUS

Here is an airship that operates on compressed air. Air is taken in at the nose, compressed in powerful engines, and expelled at the rear in a tremendous blast of energy that propels the ship just as rocket gases do. Free power from the air. (For details see page 108)